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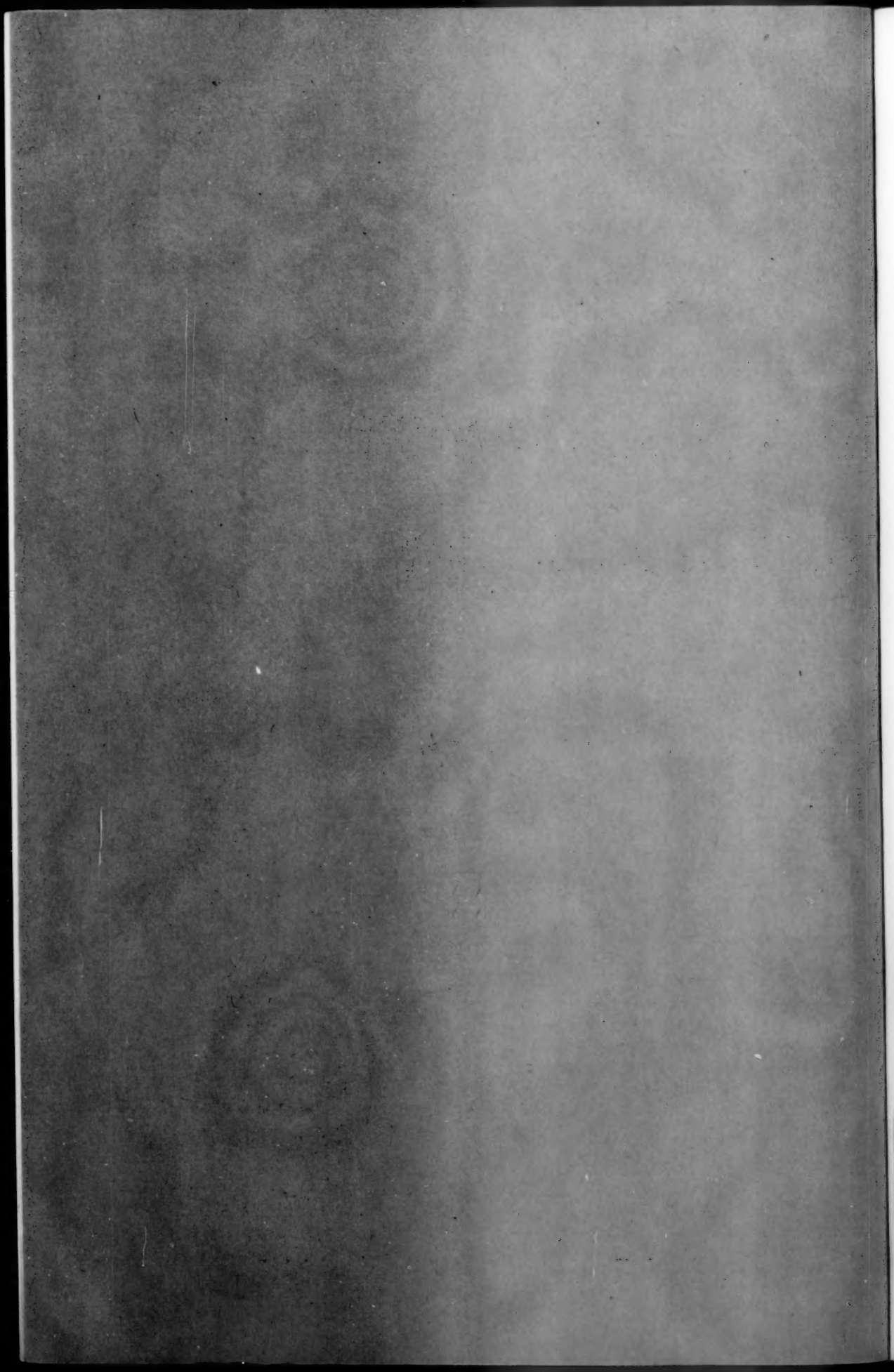

THE AMERICAN JOURNAL OF PSYCHIATRY

SCRUTINY, SOCIAL ANXIETY, AND INNER TURMOIL IN RELATIONSHIP TO SCHIZOPHRENIA

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"All the world's a stage," said the great dramatist. The social psychologist, Giddings, less pungently, though more scientifically, stated(1):

> As soon as animals of any kind begin to assemble, their acts tend to become curiously conditioned by the mere presence of one another. The matter may be put concisely in this way by saying that any living creature in the presence of another living creature does not merely engage in behavior. It may be called a series of acts. These acts become acting. It behaves differently because it is beheld by other creatures. No wild animal acts in the same way in the presence of another wild animal, as it acts when by itself. No household pet does, no domestic animal does, no human being does, no infant does. The moment another person is present the action of any creature, animal or human being, becomes acting.

I shall go further than this and state that just because human behavior becomes histrionic and thus conditioned by other actors and an audience, there are those who are afflicted with an evolving stage fright and who feel as if with each passing stranger, as well as in each focusing moment of the human drama, they become stricken with a great unease which may drive them by a sort of progressive psychic allergy either in the direction of the anxiety state or, as I believe, in that of schizophrenia. "Stage fright" on the scene of life may be episodic, transient, and reserved for special occasions and thus becomes a common human ordeal which has no significant psychiatric trend, though it may be the mother stuff out of which psychiatric diseases may develop. I have discussed this theme in previous publications(2), but the object of this paper is to develop the subject further because it seems to me to be of fundamental social psychiatric importance.

The main thesis of the hypothesis here advanced is that acting in an appropriate manner on the stage of life carries with it, for some unfortunates, first, adverse reactions to social contact; second, pathological response to scrutiny; third, grave disorganization of the feeling of security incident to distortion of the concealment-revealment polarity; and fourth, a resultant inner turmoil out of which the symptoms of the mental disorder arise. I hope to clarify these statements in the following pages.

The primary strain is the social necessity for the transformation of naive and *"native"* activity into socially conditioned human *acting*. Thus, the infant who follows his natural impulses, and so reveals without artifice and conceals nothing, becomes in the course of his development an *actor* who reveals and conceals himself in greater or lesser part according to the formulæ, necessities, and artificial compulsions of the society in which he lives, which means that he lives an intense, seething, and complicated inner life that becomes more intense *pari passu* with the difficulties of concealment and revelation. The social pressure under which all of us live is to some fortunate people like the atmospheric pressure at sea level, viz., there is no especially disturbing feeling except on occasions. There are others to whom this social pressure becomes a nightmare of disparity so that the individual is, so to speak, like one living where the atmospheric pressure is either too high or too low and he is conscious at all times of the ill effects so produced, almost as if he were on a mountain and suffering from one phase of the social pressure or in a caisson and afflicted with the opposite type of pressure.

There is a contact mechanism which is hugely developed and intensely felt in all human social relationship so that in almost no respect do people differ more widely than in the ease or unease with which they meet others—or, as the victim of social anxiety feels the situation, 'The Others." This difference seems to be in great measure "inborn" though it may also be developmental since a very large part of social training is to perfect social contact, to render it agreeable, easy, and successful. There are very young infants, perhaps from 3 to 6 months old, who react with interest, smiles, and evident pleasure to other people, includ-

ing the stranger, although at first there may be shyness and some retreat. This is easily overcome by friendly gestures and smiles on the part of the stranger, and the infant then coos his friendliness, and his whole body expresses his interest, his gratification, and evident enjoyment. There are other children of the same age who have had no experience to warrant their completely opposite reaction, who go into a sort of panic in the presence of the stranger, and who cry with evident fear or anger, are disturbed in so profound a way as to interfere with their digestion and nutrition, their rest and sleep. Their social unease, their social anxiety seems primitive and represents the polarity of the social ease of the other infant. This reaction to the stranger may disappear as time goes on and as personality organization and social relationships take place. But too often, it represents a constant factor in the child's life which does not vanish, although there may be periods when it is in abeyance.

I believe there is an *innate xenophobia*, that is, hatred or fear of the stranger. (Perhaps there should be two words to express this reaction to the stranger, one implying fear and the other meaning hostility.) All societies have been permeated with xenophobia and it remains one of the great social reactions of mankind up to this very day, in the attitudes taken toward minorities and the stranger. The historical implications of xenophobia show themselves in war and race hatred, but this is not a subject into which I wish to go. It has often seemed to me that the historian and anthropologist deal with psychiatric states on a wholesale scale while the professional psychiatrist is a mere retail dealer in abnormality.

No one has ever had to enjoin the human being, "Hate thy neighbor," though its opposite "Love thy neighbor" has required continued and not very successful emphasis because the more immediate and easily elicited reaction is hatred. So it is probable that fear or distrust, contempt or hatred of the stranger are, at least, as natural as are their opposite and that this underlies certain universal social customs. Malinowsky(3) takes this up in great detail. He points out that all the methods of social greetings from the various forms of "How do you do" to the more complicated, more ceremonial greetings, are efforts to lessen the tension of social contact by rituals. *In other words, all the ceremonies of greeting and social contact are compulsive reactions brought about by the pressure of each society in order to bridge the uneasy gap between man and man which constantly exists side by side with gregariousness.*

Even a letter, which is a derived social contact, starts with a placating greeting and ends with a stereotypy of respect or affection. The social meeting is thus made into a formula of preparatory greeting and a feeling-out which is propitiating or representative of status; a middle of business or pleasure; and an appropriate ending. The mingling may readily end in disaster and with a flare-up of hate or fear, noncommunication or deceit, and a general reversal of pleasing gregariousness, if the contact starts off badly.

The Eyes, the Face, and the Scrutiny Reaction(4)

What happens when people meet? That meeting is fundamentally mediated through the eyes, which sounds extremely trite. They "eye" one another, casually if the situation has no real importance to them, although the eyeing may be fraught with destiny and carry with it the most profound emotions. For one who can see, the most important identification and source of evaluation is the *face*, and especially those "windows of the soul" which actively scrutinize him. His own egoism may sink or rise with that meeting, which for him centers in his own face and especially his own eyes, which meet easily, indifferently, or with great unease the eyes and the face of The Others.

Scrutiny is not merely the meeting of Others in the direct meaning of that term. Even when people pass one another, there ensues a *scrutinization*, a "once-over" evaluation and appraisal which is probably of survival importance, a primal need to keep tabs on all that takes place around us, so that we may be quick to see the enemy and not fail to meet the friend. Of less survival importance in the milieu of civilization, scrutiny becomes of primal value to egoism and self-evaluation.

It is part of the thesis of this paper that the reaction of embarrassment or fear or

hostility by scrutiny and in the meeting of others may evolve into the symptoms of mental disease.

The sense of being scrutinized is a pleasure to those whose egoism tells them that the scrutiny will result in admiration and esteem, to seek which is one of the great purposes of man. Such individuals are at ease in a group. They may even strut and display themselves with great avidity. They time their arrival so that the focus of the group will be on them. In a thousand and one ways their vanity, which may or may not be justified, demands and rejoices in the scrutiny of other people. In its widest sense, this is the seeking of publicity and possibly it may be the very basis of that esteemed virtue called the desire for fame. Others are appalled by scrutiny. They become stricken with fear; their hearts pound; their faces flush and all manner of somatic responses occur which may involve the bladder, bowel, heart, sweat glands, power of coordination, tone and rhythm of striated muscle; and in diverse "abnormal" ways the victim of adverse scrutinizing may communicate to The Others that he is perilously undermined by scrutiny, that his concealment and revealment mechanisms are broken down.

One might go on indefinitely in developing the theme of the leading rôle of the eyes and face in personality centralization, in meeting and greeting, and in the various ramifications of scrutiny, social meeting, and social ease and unease. These are not simple matters and their elucidation in more profound—what is today called dynamic—terms is not the purpose of this paper. *Suffice it to say that the human being is immersed in a social life which in large measure is a sea of scrutiny in which the meeting of faces, and especially of the eyes, plays a most important rôle, in which attraction and repulsion are functions of the face and eyes as well as of other important reactions to Others—ease, unease, fear, security, anger, love, and all the polarities and gradations of the emotional life of man.*

Concealment—Revealment Polarity (5)

What is a basic fear in scrutiny? I hinted at this in the statement that the evolution of personality is from naive activity to purposive acting, from unsophisticated, primitively motivated conduct to histrionic, socially conditioned conduct. This involves, as a necessary component of the ordeal placed on the human being, as his development in any civilization goes on, *the polarity of concealment and revelation,* concealment, because much of the native thought and feeling, as well as of drive and desire, has been declared illegitimate, obscene, or criminal—at any rate, in bad taste—and thus belongs to a concealed underworld, as part of *a not-to-be-revealed inferiority.* One must conceal a great deal of what one thinks and feels; one must squelch and inhibit (that means conceal) instinctive or emotional conduct. It is not usually permissible when a man has a *tête-a-tête* with a woman to give vent to the obscene and socially forbidden thoughts and feelings which may come. These must be concealed. Words, facial expression, bodily reactions, all must act as part of the concealment mechanism. Could one, as I often tell my patients, take the top of the most conventional individual's head off and see the forbidden, the obscene, and the irrelevant which constantly streams through the mind, one would be appalled at the turmoil and power of the underworld of thought and feeling which constantly tends to surge forth and which must as constantly be concealed. This underworld of thought, feeling, and impulse is not necessarily unconscious or conscious. The consciously forbidden is, I believe, more urgent for expression than that which has finally reached the unconscious, though I believe that the term "relatively inaccessible" is more truly a statement of fact than "unconscious" in the sense of personality place, or separable phase of the inner mental life.

Suffice it to say at this point that the well-organized individual feels that he has himself under control so far as concealment of what he thinks and feels at all times or, at any rate, most of the time. He feels secure in the solidity of his skull, in the control of his words, in the relevancy and decorum of his gestures and his facial expression. Nevertheless, this mechanism breaks down in the best organized individual from time to time. There are occasions where social anxiety suddenly emerges because that which one has wanted to conceal has been revealed sud-

denly (or gradually) to the inquisitive eyes of the Others.

For the person who is afflicted with social anxiety, this concealment mechanism "feels" inadequate or utterly broken down. The prying eyes of others do or will soon reach into the hidden, the secreted, the underworld of thought and feeling, into the socially forbidden, inadequate, inept, or what you will. Put colloquially, the victim fears that he "may give himself away" which is a strange literal phrasing of lost ownership of the self. The feeling of lost personal privacy is like living in a glass house where not only are the everyday normal activities exposed to view, but all the secret and animal-like primitive viscerality comes into the jeering view of the Others.

Not only must the individual conceal himself successfully, but another phase of the polarity of his histrionics on the stage of life is *to reveal himself adequately and properly,* that is, to show himself either in socially approved fashion or, at any rate, in a way to maintain or increase his status. This revelation will, of course, take on different forms with different groups of people and at different ages of life. The completely adaptable person is rough with ruffians and refined with the æsthetes, bold where boldness is desirable, and shows a becoming modesty and timidity where that is valuable. He learns how to say or do the appropriate things at the appropriate time to the appropriate people, or at least he thinks he knows how so to act, though he may in reality strut in an unbecoming way and become an exhibitionist, and he may brag foolishly. If successful in his revelation, he will create the impression of power, dignity, and stability where this triad is desirable, and, paradoxically, the opposite triad if this suits his purpose. He will become the listener where it is someone else's place to exhibit himself. He knows how to be the actor and the audience in appropriate fashion.

To feel what one is supposed to feel is another matter and one which only the novelists have discussed adequately. To simulate interest, affection, respect, pride, love, desire, patriotism, courage when one is consumed with either the opposite affects or with boredom and indifference has not been sufficiently evaluated as contributing to neurosis and despair. *Here, acting becomes hypocrisy and leads to anhedonia with its permeating destruction of desire.*

Appropriate revelation is a great difficulty with our sufferers. They find conversation difficult; the handball of small talk is an impossible game. What to talk about with others, how to be interesting, how to be friendly, how to make friends—these are the gnawing problems.

It is not the feeling and acceptance of inferiority which hurts, for this is the very basis of the official and unofficial caste systems of the world, it is the belief that one is far better than what is revealed which creates inner disaster. They constantly feel that they are socially awkward, that what they say is inopportune and arouses derision and scorn. Yearningly they want the center of the stage, but they feel that all they can do successfully is to be a super who walks on, says a single line, and in a panic dashes off. In one form or another, expressed in a hundred and one ways, the sense of being unable to reveal oneself properly and adequately is part of social anxiety and constitutes one of the most formidable segments of the tormented inner life of these people.

This excessive stage-fright syndrome sometimes becomes first evident in unmistakable terms when the child starts his school career, his initial break with the security of his home. Here we have the problem of nausea and vomiting, the pain in the stomach, the diarrhea, and the other visceral disorders by which the unease and fear is made manifest. Then there is the case of a child that in a blind panic refuses to stay at school and dashes madly home. Victims of the same disturbance, though in lesser degree, are those unfortunate children who cannot recite in full view of their class, who feel when they stand up and become the focus of the eyes of the teacher and the other children that their world becomes rocky under their feet, and their mind becomes paralyzed in its capacity to remember; their speech becomes stammering and they are impotent to express what they know. It is to be emphasized (and I wish to iterate and reiterate this) that there is recovery from this phase of the scrutiny response in the most of cases and, in fact, some who have been so afflicted in youth may

compensate by what seems to be arrogance and great self-sufficiency.

At puberty or whenever the stage of social-sexual relationship appears when the individual feels himself moved by very powerful impulses in a socially tense and perilous direction, and it becomes necessary to act with circumspection, decorum, power, and subtlety so as to be able to charm and satisfy, to extend the personality into a type of conquest which calls forth resources of self-confidence and egotistic expression such as have never been called on before, then the scrutiny response and the social anxiety reach their height. The reaction may be a complete retreat, a refusal to go out at all, a sexual hermit-like existence. Sexual-social anxiety may express itself by nausea, vomiting, and incapacity to eat or sleep the night before or during the ordeal of the date, and most importantly, *during the period of anticipation of it.* With lesser degree of affliction are those young people who are capable of social-sexual relationship in a group where there is no immediate and critical interpersonal relationship, where the ordeal is, so to speak, divided by the number of people present and the fact that one can rest, as it were, in a corner. But where the individual has to go out with one person, to entertain her (or him) by oneself, to keep up the handball of conversation, to meet the gaze and be scrutinized and appraised all by oneself, without the moral or social support of others, the situation becomes so appalling that it cannot be faced. If such a date is made, it is looked forward to with increasing dread as it draws nearer, and finally there is the last minute break-off which sooner or later brings about isolation and solitariness with constant brooding about the social-sexual incapacity, a deep sense of inferiority with ambivalence and self-urging, and eventually visceral malfunctioning and fatigue leading to an anxiety neurosis, or the situation becomes charged with retreat and delusion.

No matter in what directions the sense of being unable to meet the scrutiny of others may develop, what situations it may encompass, it would be impossible, I believe, to overemphasize the concealed despair, the seething feeling of being hunted and haunted that overwhelms the victim. What I have here called the Inner Turmoil contains the mechanism of transformation by which this seething inner world becomes fantasy and delusion. All kinds of schemes are used both by the victim and by those around him to bring to him the capacity to stand up on the stage of life serenely or, at any rate, adequately. This or that is blamed for the development of the inability. There are probably more noses being straightened, more ears being fastened tight to the head, more mouth washes consumed and more baths taken, to overcome the rationalization that one arouses unfavorable attention through a long nose, obtruding ears, a foul breath, and bad odor than for all other reasons put together. Industry, the charm schools, and the plastic surgeon have benefited enormously by this scrutiny reaction and the effort to find some simple explanation of physical nature for it. It is notorious that the human being finds it much more easy to accept as adequate a physical explanation for his mental ills than one couched in psychologic or psychopathologic terms.

Derision Complex (6)

It may be that if the human being were invariably kind, fear of one's fellow would never arise. Since we have no way of testing this statement, I must state that the fear of derision, which the afflicted individual feels so vividly, is based on incontrovertible reality of human nature. It is within every man's experience that he who manifests weakness in any direction excites the sympathy of some of his fellows, but generally he is laughed at or derided. I have described, in a previous publication, the "derision complex," an ever-present social tendency. The omnipresence of gossip, the delight it natively gives to most people, whether politely concealed or openly indulged in, is but one aspect of this derision complex. What is called "kidding" is another form of greater or lesser sadism. The surprising tendency on the part of children to follow someone who is sick, weak, ugly, and/or peculiar and to shout derisively at him, or even to hurl sticks and stones, is but a manifestation early in life of this innate trend.

This derision complex is the polarity of admiration and hero-worship, and the unhappy victim of social anxiety knows, though

he ultimately greatly exaggerates, the secret and open derision present everywhere. Nor is superiority a defense against derision. It may be an invitation to it, for complex egoistic reasons which we need not discuss at this point. The people downstairs in the great house, the servants, deride and mock "their social betters" as part of their compensation, and however the group may express adulation of this or that great actor or public figure, let him but slip in the slightest degree, then the dogs of derision are on his trail, mocking as assiduously as once they worshipped. The people of 1948 laugh with superior derision when they see depicted on the screen the fashions of 1892. Were the situation reversed and were the people of 1892 dressed in the fashion of 1948, and were 1948 clad in the clothes of 1892, still the people of 1948 would deride the fashions of 1892.

It is quite likely that laughs and smiles are more often symbols of derision than of merriment and good will. In fact, it is this uncertainty that plagues the victim of social anxiety. "You are laughing at me, you make fun of me, you deride me," means "You would hurt me," according to the degree of sensitivity. It is thus an essential reality which the victim of social anxiety fears, but the fear has made universal an aspect of human life which is but occasional.

The Turmoil Within

We come to the heart of our problem, the turmoil within. The Individual is a condensed and visible node on the invisible web of the universe, wherein the penetrating and captured environment is held relatively constant and with a gradual dissipation of energy. Into this node(7) comes the cycle of the chemicals whose metabolism means life; and likewise the individual is in the toils of an ecology which includes the social psychological forces of the institutions of man as well as human social contact itself. The inner reaction to scrutiny and social evaluation may be as peaceful and as gratifying as a smoothly flowing river, or it may be whipped into whirlpools and vicious cycles of somatic and psychological turmoil.

There are a few peculiarities of the human mind which are, at least, artificially isolatable and which quite plausibly transform the anxiety of the intensified inner life into grim psychopathology.

1. Inner conflict, the failure to adapt that condensed node, the individual, with his environment creates a commotion one phase of which, without further amplification, we shall call fear. *Fear has as one of its peculiarities that it transforms the really irrelevant into the seemingly relevant so that while normal fear enhances safety, abnormal fear heightens the feeling of insecurity.* Two classical examples are the frightened child who, shivering in his bed, hears every noise as a ghost's whisper and transforms every shadow into a crouching, personally threatening evil, and the escaped prisoner who sneaks along in a world where every innocent big man with big feet is, to his apprehensive gaze, a detective suspiciously looking him over and ready to grab him.

2. This aggravated inner life becomes *verbalized* in excessive degree, a factor of immense importance since it is likely that this transformation of inner psychic disturbance into a continuous avalanche of words is the severest human strain and productive of the greatest self-created torture and fatigue. The splitting process starts, I believe, when one part of the self continuously exhorts another part as "You." "You should do better"; "You should not be afraid"; "You are a fool"; and then the later evolution of the "you-ness" as a separate part of the Self. "You" becomes a pervert, a base and vile thing condemned by that part of the Self which accuses. Or some other person is talked to, exhorted, pleaded with, scorned, and mollified in an endless and gradually narrowing dialogue which likewise ends in hallucination and delusion. The readiness to verbalization may, I suppose, be interpreted as voices, the thoughts that seem to emanate from the others as they scrutinize and, with leer and jeer, peer into the concealed inner life of the tormented victim, who puts on a more and more rigid outer mask of defense.

I do not believe that the increased verbalization of conflict and of fear has been given anything like adequate attention. It splits the individual into conflicting factions by providing a constant inner dialogue with back and forth inner battle; it makes it possible to take into the self as hostile, admoni-

tory, or friendly the people one has met in reality or in fiction. It makes it possible to dissect the past with a detail transcending actual experience; it can make of the present an experience plus an unreal, schizophrenic running commentary on that experience; it can rehearse the future event (this is the demoralizing *anticipation*) as a captious director puts his cast through endless modifications of the dreaded scene to be portrayed and enacted. The scenes are shifted continuously, there is a mounting sense of unpreparedness which increases with each rehearsal, and all the pleasure of spontaneity disappears, with no compensating triumph of achievement. With the allergy of increasing social failure, the retreat into a compensating fantasy (or a blank world) takes place, the verbalization finally breaks into audible "talking to himself" with self-understood smiles, or stereotypies of expression and action, as the inner turmoil settles down into patterns and breaks out into repeated fragments of communication and self-expression.

It is the power of words which makes the inner life so disastrous, which makes possible a retreat into a fictitious world which vaguely compensates for the distorted outer world.

It is within the power of words, in so-called normal life, to dichotomize the unities of existence into opposing and bitterly hostile fictions over which men nevertheless fight to the death, and from this chief of man's creations originates his triumphs and his disasters. I do not intend to go into the perils of semantics, but I wish to say that the ability to create an extensive and seething inner life depends mainly upon words, and the multiplication of choices to the point not of ambivalence, but of a paralyzing polyvalence which could not take place unless there was this doubtful human gift of inner verbalization. It is because animals have no words in their cosmos that there is only a superficial resemblance between the neuroses of their Pavlovian frustration states and the brooding pandemonium of human mental disease, which by verbalization shuffles past, present, future; the *dramatis personæ* of daydreams and reality; and their posturing, shifting dialogues and exhortations with a speed which finally brings disorder and distraction.

All of us have suffered from this inner turmoil; it is our human lot to do so when the inner life becomes diverted by barriers to outward action through doubt, fear, humiliation, and egoistic failure. Fortunately we shake it off, it ends, just how and why we do not know—but very fortunately.

The matter of the inner turmoil so sketchily presented on the psychologic side would lack substance if it were not, at least at first, part of a somatic turmoil. I have spoken of the individual as a thickened node on the invisible web of the universe. The plant is a transformer of certain types of substance and energy into itself; the animal, especially in its evolved forms, becomes a series of packed-in tubes with accessory structures into which the outer environment streams in chemical-physical cycles which the inner environment steadies into homeostasis for survival and reproduction (7). Part of the homeostasis is dependent on what we call emotion and its relative steadiness, since normal emotion so changes certain phases of this internal activity as to bring about adaptation to the outer world. Conflicting emotion or affect—the kind to which no definite path of approved activity is open—brings about inner somatic turmoil—nonappropriate and excessive activity, which in its turn enhances the inner disorganization.

This somatic turmoil has been so often described even before it became the stock-in-trade of psychosomatic medicine that I do not feel the need of going into details here. What has not been emphasized is *the social relationship of this somatic turmoil,* its feared function in *revealing to others inferiority and disgraceful reaction,* and the apprehended and corresponding failure of concealment. Because such emotion may set the gastrointestinal tract aquiver, it may produce involuntary flatus and disagreeable odor which is a source of contempt, derision, or disgust on the part of others. So with the breath or the dreaded, industrially created B. O. Since the virile and sexual reactions must be disguised or hidden, so social fear arises with the overt or subtle manifestations of sexual feeling, though they may not at all be visible, thanks to the invention of clothes, one of the prime instruments of concealment

and revealment. The stammering speech, the too ready flush, the rapid heart not only are feared somatically, but also become socially threatening since they reveal too much of inner turmoil. The bodily response thus becomes a social inferiority, a source of further anxiety, and a vicious spiral response is added or multiplied into the psychological inner turmoil, to help in the creation of delusion, fantasy, and hallucination.

This somatic turmoil is very marked in the earlier phases of the schizophrenic process, and, in fact, the old idea that there is an essential apathy in schizophrenia is all wrong. Later on apathy appears because retreat lessens strain, and there takes place a fixity of response, a growing inertness which finally leads to what we have all called deterioration.

I briefly recapitulate this hypothesis of the evolution of certain schizophrenic states. I do not set it forth as more than a factor in many cases:

There is, for evolved man, the necessity for the transformation of biologically conditioned *actions* into socially approved, frequently difficult and oppressive acting. This strain or necessity is linked with a social contact mechanism which for some is laden with xenophobia and unease in the presence of others. The social structure, through its imperatives of conduct, creates an underworld of desire, thought, emotion, and deed which must be concealed and by its approval creates a superworld which must be revealed, even though all this imposes the bilateral strains of concealment and revealment. Man becomes an actor on the stage of life, and some experience a constant or evolving stage fright in which they seem, to themselves, derided by Others, whose scrutinization seems as if it penetrated into the concealed, and made the revealed inept and inadequate. There develops an inner turmoil which, through intensive verbalization and somatic disorder, in part at least, transforms anxiety into schizophrenia.

If I ask myself at this point what may be stated as to the constitutional and/or environmental origin of this socially determined road to schizophrenia, I cannot answer with any sense of certainty or indeed any desire to impress any theory on the patient reader. I shall, however, make a few statements which have what may well be called a descending degree of certainty and dogmatism.

(1) That there is a hereditary road to schizophrenia I do not in the least doubt, though I do not state, as I shall shortly point out, that this in any way excludes an environmental origin. The facts and incidence of schizophrenia in fraternal and identical twins(8) cannot be explained in any other way since fraternal and monozygotic twins have essentially the same environment insofar as its general features go, but in the one case (fraternal twins) the heredity is different whereas in the second case (monozygotic) the heredity is the same. When the monozygotic concordance rate is over 90%, several times greater than that of the fraternal twins, then nothing can exclude the hereditary factor.

(2) But this does not exclude environmental operation, early in life, and in the development of the social drives. The separation between heredity and environment is a relatively useful dichotomy but, like all such divisions, it is in great part artificial. Experiments have been done(9) in which the environmental focussing on developing structures has brought about deviation from the norm called phenocopies and which cannot be distinguished from those hereditary results called mutations. There is a great bibliography on this subject to which I refer the reader. The net result of any thinking on the subject is that there is no human germ plasm which exists free and undefiled from environment, but indeed is as constantly fed, kept alive, and immersed in the blood stream (inner environment) as are other tissues. Certain characters are of inexorable hereditary origin, such as the main characters of man or cat or louse; others are more fluid, so to speak, and interaction with environmental factors is more easily discernible.

(3) Such are the primary social instincts or characteristics which have been discussed in this paper. It is true that many authors have objected to the term social instinct, but there are no solitary races of mankind, and man's precarious evolution has depended on the development of traits which are either to be called social or else there is no use for such a term at all. The social drives

have not as yet a good solid organic background, though the chief social instrument, speech, certainly tucks itself away in many parts of the brain, and the expiratory air of man becomes charged with the mystery of meaning as it becomes built into words by well-known physical processes. It is idle to say because, as yet, we have no really comprehensive physiological social psychology that there is none. It took the electroencephalograph to show that epilepsy existed between attacks, and no one knew of any difference between syphilitic and nonsyphilitic blood until the Wassermann reaction appeared on the scene. And the atom was the indivisible unit of the universe—until it was divided! One has only to read such books as Alverdes' "Social Life in the Animal World" (10) to realize that, in the scheme of life, sociality in its various phases is as innate and species-bred as form and function generally are.

(4) But in the case of man, the "natural" or biological direction of all the drives, including the social, becomes diverted, thwarted, distorted, exaggerated, and annihilated in a measure not possible to the rest of life because in human life speech, tools, machines, and great social institutions operate with terrific force. The range and depth of reactions is enormous in man and he has built perilous monstrosities into his social and individual life. He is more ambivalent than any other animal, having more choices to make and often having to choose not only in behalf of survival status and security, but also such illusory matters as good, evil, sin, salvation, æsthetics, propriety; and there is as much soul-shaking dilemma in propriety as in salvation. It is his social life especially which brings him into contacts the more difficult as they become more refined. Personal "refinement" makes satisfaction more precarious and is a road to anhedonia or the disappearance of desire and satisfaction. Indeed, crudeness is the real basis of much of mental health.

Moreover the home, *because it becomes an instrument of isolation,* does not help social contact and social ease. It is also my belief that a demand for increased competitiveness and excessive individualization increases social strain, though if anyone were to ask me what I meant by strain, I could only answer, "You know what I mean even if it is impossible to define it."

However, it is not my purpose to go into etiology. One can select, if he likes, Freudian, Adlerian, Jungian, or Pavlovian mechanisms as basic. What I have tried to do is to set down the evolution of certain mental disturbances, originating in the social life of man, into anxiety states and schizophrenia.

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PRACTICAL ASPECTS OF MESANTOIN THERAPY IN EPILEPSY[1]

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I. Introduction

The introduction of dilantin sodium (diphenyl hydantoinate) was an epochal event in the history of epilepsy(1). The therapeutic effectiveness of this drug converted the epileptic from a neglected into a respected patient(2). But not only was this drug a boon to patients themselves, it also stimulated further search for new products.

One of the most effective of these is methyl-phenylethyl-hydantoin, manufactured by the Sandoz Chemical Works under the trade name of Mesantoin. The first clinical reports were published by Loscalzo(3, 4) and Clein(5). More significant was the paper by Kozol delivered at the meeting of The American Psychiatric Association in May 1946. Kozol used Mesantoin in a large series of epileptics who could not tolerate or did not obtain relief from dilantin sodium. He reported a marked superiority of Mesantoin over previous anticonvulsant medication(6). His paper stimulated our interest in this subject and we intensified a clinical study of this drug which we had started some months before.

II. The Study

Our patients were private cases with various types of epilepsy. Each case was studied thoroughly with a careful history, a physical and neurologic examination, EEG, and other appropriate laboratory procedures. A record of the number of attacks which the patient had had prior to coming to our office and a detailed record of subsequent attacks was kept. At first, patients were advised to reduce or discontinue the previous anticonvulsant drugs when Mesantoin was begun. Several promptly had an increased number of seizures. We thus learned that Mesantoin could not immediately replace the anticonvulsant protection which previous therapy had given(7). We had made similar observations of the inability of dilantin sodium to serve as a quick replacement for phenobarbital when it was abruptly discontinued. For this reason it became our custom to add Mesantoin to the previous medication rather than to replace one by the other.

Altogether some 110 patients were started on this medication during a 2-year period. However, this paper will cite the results in 100 patients who were followed for a year or more. We will omit those in whom we discontinued the drug because of some toxic reaction or who themselves did not follow through because of economic, geographical, or personality reasons.

Because of our policy of adding Mesantoin to previous medication, there were only 10 patients who received Mesantoin alone. These were individuals who had not been on therapy when they consulted us. Ninety of the patients received Mesantoin in addition to their previous therapy for it became apparent early in our study that a comparison of Mesantoin versus dilantin, though desirable theoretically, was not the true goal of our efforts. So effective was this combination of Mesantoin and dilantin sodium that this complementary use of 2 anticonvulsant drugs pre-empted our interest. Why be limited to the alternative choice of one drug or the other when a combination of both can be more effective?

Our patients were classified roughly into 4 groups according to the results obtained. First were those with successful improvement, who were placed in Group A. Next is a group of those who received considerable improvement, or Group B. The third group comprises patients who obtained slight or moderate benefit. The fourth group, labeled D, consists of those who got no benefit or in whom Mesantoin proved to be a failure. If one would wish a numerical equivalent of the various designations, we might take a composite patient who had been suffering from grand mal attacks at the average rate of one per month. Such a patient merited a grade of A if he had one attack or less in a

[1] Read at the 104th annual meeting of The American Psychiatric Association, Washington, D. C., May 17-20, 1948.

From the Fetterman Clinic, Cleveland, Ohio.

6-month period. Thus several of our patients were entirely free of attacks for a year or more; others had but one attack in a period of from 6 to 12 months. Group B would include those patients who had two attacks or less in 6 months. We placed in Group C those who had 3 attacks or less in 6 months. In category D were placed those whose seizure frequency was not materially influenced by the medication.

III. Results

A. Ten patients received Mesantoin only. The dosage ranged from 2 tablets, gr. 1½ each per day, up to 8 tablets daily. It was our custom to start with a smaller amount of medication and then increase the dosage from visit to visit if the patient had attacks. Quite regularly, we would start an adult patient on 2 tablets daily for the first week and increase to 3 per day during the second week. Thereafter the dose was increased by one tablet if attacks occurred, up to the limit of tolerance. Rarely did we exceed 10 tablets per day in exceptional cases.

Of the 10 patients who had been receiving no medication whatsoever, 7 were classified as A—excellent results—attack frequency reduced to less than one in 6 months. Two patients were classified as B, meaning moderate improvement, and one classified as C, slight improvement. Thus the results in these 10 patients were highly satisfactory.

B. Of the 90 patients who received Mesantoin in addition to previous therapy, our practice was as follows: One tablet of Mesantoin was added to the previous therapy, be it dilantin sodium, phenobarbital, or tridione, or a combination of these. Thereafter additional Mesantoin was prescribed if the attacks continued. Because of the tendency to increase side actions, such as drowsiness, or ataxia in those who had been taking previous medication, the Mesantoin dosage was increased slowly.

Of the 90 patients in this group who had received Mesantoin combined with dilantin sodium, 33 were classified as A, 34 as B, 20 as C, and 3 as failures. This does not include several patients who discontinued the drug shortly after starting it because of a rash.

The goal in combining medication was not a limited number of pills but a limited number of spells. Our impression of the use of Mesantoin alone and especially when combined with dilantin sodium was that a greater number of patients enjoyed longer periods of freedom from this combination than any *previous* medication. Many of the patients were receiving after 3 to 6 months of therapy a dosage which consisted of from 2 to 6 Mesantoin tablets along with 3 to 4 dilantin sodium capsules.

Table 1 shows the splendid results in helping a large majority of epileptics. At first

TABLE 1

	Mesantoin alone 2-8 tablets	Mesantoin and dilantin
Grade A (excellent)		
One grand mal attack in 6 months or less	7	33
Grade B (good)		
Two attacks or less in 6 months.	2	34
Grade C (fair)		
Three attacks or less in 6 months	1	20
Grade D (poor)		
Failures	—	3*

* We might list in category D many of the 10 cases who discontinued treatment. For the cessation of treatment usually signified an unfavorable result, be it a toxic reaction, or lack of prompt improvement. However, the "failure" may be ascribed to other causes such as removal from the community, financial, and personality problems.

glance it would appear that Mesantoin alone was as effective as the combination of Mesantoin and dilantin. If we look deeper we learn that Mesantoin alone was used in those patients who had not been taking any medication. The combination was used in patients who were already receiving dilantin sodium, or phenobarbital, or a combination, and still suffering from spells. Hence, we may infer that they were relatively treatment resistant. Thus the result of the addition of Mesantoin was remarkable in that it helped materially to eliminate seizures which were still coming through on dilantin alone or when the patient was getting dilantin and phenobarbital.

C. Mesantoin was effective in the control of grand mal attacks. This was true for patients of all ages and for seizures both in idiopathic and organic cases. We have been particularly impressed with the results of Mesantoin in Jacksonian cases. Its efficacy in reducing such seizures has been conspic-

uous. However, the benefit in psychomotor cases was not impressive while in petit mal spells Mesantoin was of little or no value.

D. Change in type of attack. An observation made previously by one of us was that a large number of patients reported abortive attacks under Mesantoin(8). Further experience confirms the initial impression. More patients have stated that they have had "warnings or feelings" of an oncoming attack which are dissipated without a seizure. This statement was made in a far greater number of cases than with any previous medication which we have used. In one patient, however, the recurrence of such feelings was quite disturbing and was relieved only when the patient had a grand mal attack.

IV. Side Actions and Miscellaneous Observations

Mesantoin is a relatively safe drug and its side actions have not been severe. Most patients have maintained well-being, working efficiency, and mental poise during the time when they were taking this drug. However, there are certain side actions which we should discuss.

A. *Drowsiness.*—Mesantoin tends to produce sedation. Some patients are relatively free of any such effect; others enjoy a relaxation which is pleasurable, while there are those whose somnolence is almost disabling. About 50% of the patients made no comment whatsoever as to drowsiness; about one-fourth were remarkably pleased with the calmness which they enjoyed. The remainder complained of irresistible somnolence. Such drowsiness is most marked in the earlier weeks of Mesantoin therapy or when large amounts of tablets are necessary. Patients mentioned the tendency to fall asleep when reading and resting. This lethargy can be dissipated by physical activity and can also be overcome to a certain degree by the use of dexedrine sulfate 5 mg. at breakfast and lunch. Fortunately even those patients who were troubled by somnolence tended to acquire a tolerance and could later dispense with the use of dexedrine. When the lethargy was so marked as to interfere with work or school then the dosage of Mesantoin had to be reduced and more dilantin sodium prescribed.

B. *Skin Rash.*—Two types of skin reaction have been observed, an early generalized erythema and a later papular eruption with or without generalized erythema. Both are accompanied by changes in the blood.

Within 2 weeks after the inception of Mesantoin therapy there may be a marked, generalized reaction frequently pruritic. There is a propensity to affect the flexor surfaces of the extremities, the trunk, and to a lesser extent, the face.

An elevation of temperature to 101, eosinophilia of 10-15% and monocytopsis of 6-10% occurred in 2 patients.

The symptoms gradually subsided with the discontinuance of the drug and the pruritus was controlled with benadryl. Scaly thickening of the skin, particularly on the extremities, and cracking of the skin at the flexor surfaces with danger of infection had to be dealt with in the course of convalescence. All symptoms cleared within 30 to 60 days save for a persistent pigmentation in the areas most intensely affected.

In 3 patients a rash developed after 4 to 8 months after the beginning of therapy. This was a mixed eruption of dusky red papules on an erythematous base and was accompanied by generalized lymphadenopathy (most prominent in the cervical glands), fever to 103, and either the characteristic eosinophilia to 15% or a monocytosis demonstrating the "leucocytoid monocytes" seen in infectious mononucleosis.

In one instance with high fever there was also a leucopenia (2,500). In the other the white blood count was 6,000.

C. *Metabolic Effects.*—Except for the 2 patients with fever and eosinophilia there was no significant change in appetite, digestion, or weight. Several patients mentioned constipation but this was not a consistent symptom.

D. *Mental Status.*—Although we did not subject our patients to routine intelligence tests, we did make careful inquiry as to the performance level and mental efficiency of every patient, in his social life, at work, or at school. In several children the quality of school work dropped, largely because of drowsiness. However, in the greater majority of cases there were no untoward effects. On the contrary, many of the patients

reported improvement: several of the high school students got better grades after taking Mesantoin than before the drug was used. It is not meant to imply that Mesantoin improved the intelligence, although we have no figures on this score. It is our impression that the improvement in scholastic level could be ascribed to the improved state of well-being and the general confidence stemming from relative freedom from attacks. A similar improvement in work efficiency has been described by adult patients who have done better at their jobs and careers.

E. *Blood Studies.*—Inasmuch as marked blood changes occurred in patients who showed skin rashes we proceeded to carry out blood studies in most patients. Tests revealed an increased eosinophile count of 4% or more and a relative monocytosis in approximately 20% of patients. Such changes occurred in individuals who manifested no clinical abnormalities. However, we deem it advisable to recommend routine tests from time to time in all patients on Mesantoin. Certainly the occurrence of a rash is a warning to the patient and to the physician of possible blood dyscrasia as well as dermatitis.

F. *Coordination.*—In several instances the addition of Mesantoin to dilantin sodium produced a sensation of dizziness and some ataxia. This necessitated a modification in the dosage. However, there were no instances of marked tremor and ataxia from an effective combined use of dilantin and Mesantoin as compared to the tremors and ataxia which had been previously seen in patients taking larger amounts of dilantin sodium alone.

G. *EEG Studies.*—Electroencephalographic studies with a 6-channel Offner apparatus were made for nearly every patient. The cortical dysrhythmia was graded 1 plus to 4 plus depending upon the relative amount of abnormality, such as slow waves or very fast waves, spikes, paroxysmal high voltage "bursts," "petit mal" formulations, or asymmetry which was encountered in the records.

Efforts were made to establish a correlation between the degree of abnormality of the brain wave record and the response to treatment in patients with and without clinical signs of local brain damage. No evidence of a trend could be established on which we could accurately prognosticate the results of therapy on the basis of the brain wave, but there were indications that patients with localized aberrances might do well on Mesantoin alone. We were impressed with the pronounced improvement of practically all cases of Jacksonian epilepsy. No changes in the character of successive brain waves could be ascribed to the effect of therapy. The utility of the EEG for diagnosis is again confirmed in that only 4% of patients with a clinical history of seizures had normal records.

V. Combinations of Anticonvulsant Drugs

Over the past 10 years it had been observed that dilantin sodium was perhaps the best anticonvulsant medication available. However, there were patients who continued to have attacks even when the dosage was 3 and 4 capsules daily. In order to keep such patients attack-free, some physicians tried increasing the dose of dilantin to 5, 6, or more capsules daily. Such an amount of dilantin sodium quite uniformly tended to produce profound side actions such as tremors, ataxia, insomnia, gum swelling, and loss of appetite. For this reason many physicians resorted to a combination of phenobarbital with dilantin sodium if 3 capsules of dilantin proved inadequate. A combination of dilantin and phenobarbital was often effective.

Our experience, however, indicates that Mesantoin and dilantin represent the most effective anticonvulsant combination which can be used today. These drugs exert a synergistic anticonvulsant protection while at the same time they tend to offset each other's side actions. Consequently, the number of patients who have been relieved of attacks is greater than from any previous single drug or combination of drugs which we have used.

Some physicians, including Loscalzo, have combined Mesantoin with phenobarbital. The objection which we would raise to this combination is that each adds to each other's sedative action and yet lacks the more effective anticonvulsant quality of dilantin sodium. In several cases we have added Mesantoin to the combination of dilantin sodium and phenobarbital when these two drugs

failed to control seizures. The 3 drugs could be employed together. However, we would gradually reduce the phenobarbital provided the Mesantoin prevented attacks.

VI. Illustrative Cases

Many cases come to mind of patients who had received excellent results from Mesantoin. One example is that of J. C. S., an adult of 33 who had been under my care off and on for a period of over 20 years. He was troubled by Jacksonian attacks and generalized grand mal seizures. At the time he was seen in June 1946, his attacks averaged one per month. He was first placed on phenoitin which is a combination of Mesantoin and phenobarbital. There was some improvement but he still had some attacks. He was then placed on Mesantoin in November 1946. This patient had one attack so that the dose was then increased to 6 tablets a day. He has maintained this dosage for a period of over one year, during which time he has been entirely free of attacks. Mesantoin was then reduced and he remained attack free. An intelligence test of this patient showed an IQ higher in 1947 than it had been in 1927(9). This patient had received Mesantoin alone.

An illustration of the combined therapy is that of J. D., an adult of 29 whose epilepsy began in 1930. His attacks had occurred at irregular intervals of one a week to one in 3 months. He had been receiving up to 4 dilantin sodium capsules per day but this did not suffice to prevent the seizures. He had shown some gum swelling. In March of 1947, 2 tablets of Mesantoin were added to his previous medication. This dose was automatically increased first to 3 and then to 4. This patient is classified as A plus because he had been entirely free of attacks for 13 months.

A similar excellent result was obtained in the case of D. E., a young woman of 18, whose attacks began at the age of 10. She averaged one attack in 2 to 3 months, although receiving one capsule of dilantin sodium 3 times daily. Mesantoin was then added in January of 1947 and the dose raised later from 2 tablets daily to 3. Thus this patient has been receiving one capsule of dilantin and one tablet of Mesantoin after each meal. She has been entirely free of attacks for 14 months since this combination was started. The young woman completed her high school work, enjoys good health, has taken a job, and is efficient in her work.

An example of moderate improvement is that of Mr. S. H., a man of 39, whose spells began at 20. He was troubled by petit mal spells as well as grand mal attacks. Prior to January 1947 he was receiving tridione, one capsule 5 times a day, and dilantin sodium, 3 capsules daily. His attacks still continued. Mesantoin was added in January of 1947. For a period of 8 months he was entirely free of grand mal seizures, though occasional petit mal spells recurred. Since that time he has had 2 major attacks in 6 months. This man has gained weight and feels quite well, but the fact that he has had 2 seizures in the past 6 months places him in the B group.

Among those cases who are considered failures are the patients who developed skin rashes early and thus could not tolerate the drugs and several whom I have found to be treatment-resistant. These latter patients had failed to respond to the previous medication. One is a youth of 20 who had been getting dilantin and phenobarbital with little or no benefit. Mesantoin was started and the dosage raised to 8 tablets a day. Despite the combination of Mesantoin, dilantin, and phenobarbital this patient's attacks continued. Apparently he had frequent seizures, which thus far have proved treatment-resistant. There are several other such cases in the series.

Among those who were thought to be treatment-resistant was a young woman who had been troubled by numerous attacks, perhaps 2 to 3 grand mal seizures per week. Dilantin sodium and phenobarbital had failed to stop them. Mesantoin was added and the seizures continued almost unabated when the small amounts were prescribed. However, when the dosage was increased to 7 and 8 tablets a day, this patient had a remarkable reduction in her attacks, less than one per month. For this particular patient one attack per month was considered quite successful.

VII. A Trial of Mesantoin in Non-Epileptic Conditions

We have tried Mesantoin for certain neurologic states independent of epilepsy.

A. *Dystonic Movements.*—Mesantoin was tried in a case of torticollis but there was little or no change in the involuntary movements of the head and neck. Mesantoin was also tried in a case of choreiform movements with athetosis. This patient has reported considerable subjective improvement, perhaps because of the sedative action of Mesantoin. There was no discernible change in the intensity and frequency of these movements.

B. *Posthemiplegic Paresthesias (Thalamic Syndrome).*—A patient who had had a cerebral lesion was troubled by residual hemiplegia and burning pain in the arm. Because of the paroxysmal nature of this pain, we tried a course of Mesantoin. Three tablets a day were prescribed. The patient did not obtain any significant relief.

C. *Mesantoin in Hyperkinetic Syndrome.*—Two patients troubled by hyperkinetic behavior syndrome were given Mesantoin. One of these developed a marked, general-

ized eruption and the drug was therefore discontinued. During its use there was no improvement in the patient's behavior. Another case tolerated Mesantoin well; however the overactivity and peculiar behavior were not changed.

VIII. Instruction to Patients

Our results with Mesantoin during the past year have been excellent. A substantial number of our patients have had great benefit and have been living happier lives. This is attributed of course in part to Mesantoin and especially to our use of Mesantoin plus dilantin sodium. However, we depend also upon giving to every patient practical points of guidance that one might call psychotherapy. Previously it was our custom to discuss these points with every patient, and his family, especially at the first visit. It occurred to us to put down in writing some of these items which had helped us to win the continued cooperation of the majority of patients over a period of time so that they could get the proper benefit from treatment. If a patient is given Mesantoin or dilantin sodium and still has attacks he is likely to discontinue treatment unless he has been forewarned. An outline such as the following may serve to instruct the patient and his family and thus to obtain for the doctor better cooperation and for the patient better results. Books such as those of Lennox(10, 11) and Putnam(12) are of considerable educational value to patients and their families.

Instruction Sheet for Patients Suffering from Spells

You are subject to a condition of spells. There is a good chance that you can be very much helped by treatment. If you understand your condition and the purpose and plan of treatment, it will help you to get maximum benefit:

1. Proper treatment is a long-term joint responsibility between your doctor and yourself.

2. A person whose spells are reasonably controlled should be able to lead quite a normal life. He may eat the average, well-balanced diet, work a full day, of course avoiding hazardous jobs, and he may participate in wholesome recreation. He should not drink excessively and should try to spare himself undue fatigue and excitement.

3. Keep a written record of attacks so you can report precisely when and how the spells took place. Your family should observe the reaction which you go through carefully as well as look after you during a spell.

4. Proper treatment requires a cautious balance between the qualities of the medicine and its possible ill-effects. The doctor will help guard you so that you can maintain a healthy balance.

5. All medicine has side actions for which the doctor is on the alert. For this reason it is advisable that you should consult him quite frequently at first and then at more widely spaced intervals when your spells are controlled and you are not sensitive to the medication.

6. Most patients can take one medicine or several medicines combined over a period of years without harmful effect.

7. It is best to take your medicine as instructed. It is our usual custom to divide the medicine throughout the day so that it can be taken after each meal and at bedtime. If however you should forget one dose, be sure that you have taken the necessary amount before you retire at night.

8. Specify clearly on your identification card that you are subject to spells. List the names and phone numbers of the person who should be notified in the event that you have a spell and are found unconscious.

9. Do not judge too hastily of the results which your medicine is doing for you. Some patients show immediate improvement and then are inclined to discontinue the medicine. Other patients are disappointed during the first few weeks that their spells are not controlled and are apt to want to quit the drug. It is apparent that if a patient is having a chill and gets a hot water bottle and the chill continues that he should not throw the hot water bottle away but should take two hot water bottles and a blanket. By the same token, take your medicines, pills, or capsules consistently. We advise a gradual increase in the amount as needed and we warn against sudden stopping of medicine. You should continue to take your medicine even if you are out of town or if you are sick with some other ailment. Even if you are in the hospital for an operation you should continue this medicine along with other remedies which may be prescribed.

10. Sometimes spells are inevitable. You should not get too disheartened and your family need not become too alarmed. They can help you by assisting you to lie down at the first sign of trouble, by freeing any tight clothing during the spell and by inserting a rubber eraser between your teeth. They need not awaken you, for nature takes care of this for you!

Comment

The control of seizures represents maintaining a balance which is sometimes precarious between the therapeutic need and the toxic side actions. This means close supervision during the earlier months of contact and then a follow-up at intervals of, say, every 3 months even when a certain control

has been obtained. In addition, every epileptic is beset by psychologic problems to a greater degree than the normal. At each visit we should supplement medication with psychotherapy, which relieves the patient of the stigma of his malady, provides guidance for problems of work and social existence, restores hope and confidence. Patients are loyal and eager to cooperate if the physician shows interest in them. Like the diabetic (12), whose diet and insulin need frequent supervision, so the epileptic deserves close and careful medical control. When such supervision is given and if a single drug or a combination of drugs is properly administered with a goal in mind of cutting out seizures, then the great majority of cases can be tremendously helped.

Conclusions

1. Two years' experience with Mesantoin shows it to be a highly valuable anticonvulsant drug. It can be used alone in the control of grand mal, especially Jacksonian attacks. It may be of some benefit in psychomotor seizures.

2. We have found that Mesantoin is best combined with dilantin sodium. Dilantin sodium is still perhaps the most effective anticonvulsant remedy and should be the base upon which other drugs are added.

3. The dosage of Mesantoin and dilantin sodium must be individualized and adjusted to the need of the patient. May we impress the goal of a limited number of spells, not a reduced number of pills.

4. A common effective dose for adults is dilantin sodium 1 to 3 capsules, and Mesantoin, 4 to 6 tablets daily. This combination has proved more effective in controlling seizures than any previous single drug or combined drugs which we have used.

5. Side actions of Mesantoin include drowsiness and skin rash. As a rule patients acquire tolerance to the drowsiness in a period of time. Dexedrine and physical activity tend to free the patients from the somnolence.

6. Effective control of an epileptic requires close and continued observation and treatment.

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VOCATIONAL REHABILITATION OF EPILEPTICS IN TEXAS[1]

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Those associated with vocational rehabilitation in Texas have long realized that epileptics should be included in any state-wide program designed to aid the handicapped, feeling that many of these patients who were serious economic burdens to their families or the state could become self-supporting with the proper help. We further realized that education of employers and employment agencies, proper selection of jobs, adequate medical control of the seizure, and the cooperation of the local physician were essential before successful rehabilitation of the epileptic could be expected.

Prior to 1946 no organized effort toward vocational rehabilitation of epileptics had been made in Texas. Several physicians, including the writer, had made occasional attempts to obtain jobs for patients, but because of lack of sufficient study of the patient to determine his capabilities or sufficient ancillary personnel to interpret his condition to employers little was accomplished. In the latter part of 1945 the Texas State Board of Vocational Rehabilitation was authorized to accept epileptics for examination and training on the same basis as any other handicapped person. The only criteria for acceptance were that the patient be at least 16 years of age, unable to finance his own examination and training, and that he be able to profit from training.

A special clinic had been established at John Sealy Hospital early in 1945 for the study and treatment of epileptics on an outpatient basis but no funds were available for vocational rehabilitation. With these 2 agencies cooperating the following plan was mutually agreed upon.

Patients were to be selected by the Vocational Rehabilitation Counselor, who would survey the patient's environment and prepare a social history which would include all pertinent information concerning his home and family situation, his educational background, his work history, and his general social adjustment. The patient is then admitted to the hospital for a period of 10 days for detailed study, which would include medical, psychiatric, psychological surveys and whatever laboratory or consultation services were deemed necessary for the individual. The patient was placed on an open floor with other ambulatory neurological and mild psychiatric cases where acute observation of his social adjustment could be made. During his stay in the hospital his medical program was started and detailed discussions of his illness were given. It was especially important to impress upon the patient that his goal was not a cure but rather control of his illness. Various vocational plans were discussed and the most practical for the individual was agreed upon. It was felt that the counselor directly involved should visit the clinic at the time of discharge of the patient in order to become better acquainted with the medical and vocational problems of his client by means of a direct discussion with the physician. At this visit he also became familiar with the physical setup of the clinic and thus was better able to answer questions from future parents and patients.

There have been 52 patients admitted under this plan since its inauguration in February 1946. A study of these 52 cases reveals the following:

There were 10 women and 42 men, whose ages ranged as follows:

Age		Age	
16-20	23	31-40	7
21-25	10	41-50	2
26-30	8	50-60	2

The study revealed that 25 of these 52 patients had one or more concomitant handicaps, including:

Psychoneurosis	5
Schizophrenia	3
Psychopathic personality	3
Organic psychosis, posttraumatic	1

[1] Read at the 104th annual meeting of The American Psychiatric Association, Washington, D. C., May 17-20, 1948.

From the Department of Neurology and Psychiatry, Medical Branch University of Texas.

This study was prepared in cooperation with Mrs. Frances Frazier, Supervisor of Physical Restoration Division, Texas State Board for Vocational Education.

Mental retardation	9
Bromide intoxication	1
Dilantin intoxication	1
Hemiparesis	8
Hydrocephalus	1
Asthma	1
Cerebral arteriosclerosis	1
Otitis media	2
Congenital hemiatrophy	1
Traumatic loss of one limb	2
Tertiary syphilis	1
Narcolepsy	1

A clinical diagnosis of epilepsy was made on each of the 52 of the following types:

Grand mal	32
Grand mal and petit mal	6
Grand mal and psychomotor	4
Petit mal	6
Psychomotor	4

Of the 42 patients whose studies were completed before January 1, 1947, it was determined that 8 were not feasible for rehabilitation. It is interesting to note that all of these 8 patients were referred during the first 4 months of this study and that no 2 of the nonfeasible patients were referred by the same counselor. The following disposition was made of these cases: Two were referred to and accepted by state epileptic colony, 2 by state hospitals, and one by local family welfare service. Two died before rehabilitation could be started and one refused further assistance.

Seventeen of the 34 feasible clients were placed in employment without training after their seizures were controlled.

Types of employment		Weekly wage at beginning
Bookkeeper	1	30.00
Lumber salesman	1	45.00
Bus boy	1	20.00
Stenciler	1	27.00
Insulator	1	30.00
Housewife	1	no wage
Service station	1	6.00 (part time)
Salesman	2	24.00
Helper on truck	1	32.50
Laborer	1	30.00
Yardman	1	25.00
Farm hand	2	20.00
Fruit orchard	1	25.00
Record shop	1	15.00
Musician in orchestra	1	35.00

Rehabilitation plans for vocational training were completed for 12 of these 34 feasible clients. Two have finished training and have been placed in employment in their selected vocations, viz., dressmaking at 40.00 per week; radio repair at 30.00 per week. Two clients accepted employment before completing their training courses in radio repair (4 months) and auto painting (3 months). They are employed, respectively, in a seismograph crew at 35.00 per week and as a laborer at 25.00 per week.

Eight clients are still in training, one each in the following fields: Domestic, drafting, photography, receptionist and cashier, business administration, refrigerator repair, sign painting, and wood-work.

Satisfactory vocational plans have not been completed for the remaining 5 of the 34 feasible patients. We felt that it was particularly important not only for the success of our program but also for the patient's morale that he not be placed in a training program that he would not be able to handle nor that he be placed in training or employment until his seizures were well enough controlled that he could reasonably expect to be able to continue working. *Not one of these 42 clients was working at the time they were referred to vocational rehabilitation.*

COMMENT

We feel that our study confirms the fact that many epileptics can be successfully rehabilitated. In some instances the only steps necessary are adequate medical control of the seizures and interpretation of the illness to the prospective employer by the counselor. It is necessary that the rehabilitation counselor make a thorough study and be adequately grounded in the principles that are involved in this special rehabilitation problem.

After a period of one year had elapsed it was interesting to learn that 21 or 50% of the first 42 patients studied have been restored to usefulness in society and are self-sustaining. Eight others are in the process of training and are expected to accept employment at the end of their training period. This study then reveals that 68% of epileptics can be expected to be restored to employment.

A study of the actual amount of money spent by the Texas Vocational Rehabilitation Division in an attempt to rehabilitate the 21 epileptics who have been placed in satisfactory employment reveals that a total of

$3,167.42 was spent on these cases. A study of the wages earned by this same group at the beginning of their employment showed an earning of $523.50 per week. This study then points out that the rehabilitation of epileptics is economically sound. The 21 clients who are now successfully placed in employment were unemployed at the time they first came to the attention of the Rehabilitation Counselor. After the control of their seizures, and after counseling, guidance, and placement, these same individuals have earned in a 6 weeks' employment period the amount expended by a tax-supported agency in order that they may be self-sustaining rather than dependents upon relatives and their community. They are still employed and are now taxpayers rather than tax-consumers.

In the interpretation of the above material, it must be kept constantly in mind that the Vocational Rehabilitation Division is not dealing with the epileptic who has found his own place in society. We are dealing rather with the epileptic who has presented a problem to the community.

We were able to show the counselors that epilepsy does not concern itself with one mental group. While there are many epileptics who are feeble-minded, there are also many who have superior intelligence. There are also many epileptics with other disabilities that often were more handicapping than their seizures. We have also learned that the rehabilitation process must be slow because it is necessary to achieve the maximum control possible before the training program is started.

Other rehabilitation techniques which are peculiar to the problem of the epileptic disability are concerned with proper explanation to the trainers and employers. A great deal of emotional harm can be done by a nonunderstanding, nonsympathetic trainer or employer.

Our counselors have learned to accept the fact that perfect control is rarely achieved in its entirety. Many epileptics will have a rare seizure, even on the best medical program. The client and his employer must be prepared for this, and this factor must also be considered when choosing the type of vocation for the client.

COMMITMENTS UNDER THE CRIMINAL SEXUAL PSYCHOPATH LAW IN THE CRIMINAL COURT OF COOK COUNTY, ILLINOIS [1]

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AND
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Chicago, Ill.

In Illinois we have statutes for commitment of (1) epileptics and (2) feebleminded; and the Revised Mental Health Act [5] of 1945 provides for commitment to a mental hospital of (3) a "mentally ill person" and a "person in need of mental treatment."

By definition, a "mentally ill person" is one who, by reason of unsoundness of mind, is incapable of managing himself or others if permitted to go at large, or any person who, by reason of unsoundness of mind, is incapable of managing and caring for his own estate and is in such a condition of mind or body as to be a fit subject for care and treatment in a hospital for mentally ill persons; provided that no person whose mental development was arrested by disease or physical injury occurring prior to the age of puberty, and no one who is afflicted with simple epilepsy, shall be regarded as mentally ill unless he is mentally ill as herein defined, and provided further, that nothing in this Act shall be construed to apply to any mentally ill person, or person supposed to be mentally ill, who is in custody on a criminal charge. (Unsoundness of mind is not further defined by statute.)

A "person in need of mental treatment" means any person, although not a "mentally ill person," who is in such condition of mind or body as to be a fit subject for care and treatment in a hospital for treatment of mental disorders.

A person committed as mentally ill loses his civil rights, while one in need of mental treatment does not. This last classification was included in the Act primarily to obviate need to appoint a conservator for one of small estate, especially a veteran.

There are 3 types of admissions, namely: (1) by voluntary application, (2) by emergency admission, and (3) by court commitment.

As noted in the definition for "mentally ill person" the word "insane" applies only to criminal procedure and commitment under the criminal code. The word "insane," as applying to state hospitals and court commitments in civil proceedings, was abolished in 1943.[6] The term "mentally ill" is substituted.

In addition to the civil commitments we have 3 commitments under the criminal code. (Although these proceedings are instituted under the criminal code, the rules of civil actions apply, namely: each side may call the defendant to the witness stand). These commitments involve

1. Those charged with a felony who are insane; have become insane while awaiting trial; or are alleged to be insane.

2. Those defined as "criminal sexual psychopaths," after being charged with a sexual offense, heard in municipal courts or courts of higher jurisdiction before a jury of 12, after testimony of 2 qualified psychiatrists who have limited their practice exclusively to the diagnosis and treatment of mental and nervous diseases for not less than 5 years.

3. "Criminal sexual psychopaths" upon expiration of their penitentiary sentences. This hearing is in a county court in the county where the penitentiary is located upon the testimony of a commission of 2 local doctors.

[1] Read at the 104th annual meeting of The American Psychiatric Association, Washington, D. C., May 17-20, 1948.

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[5] Revised Mental Health Act, Illinois 1945.

[6] Illinois Mental Health Act, 1943.

In Illinois we are unique in that the Supreme Court of this state has at various times delivered opinions of the tests to be applied for insanity in criminal trials. These are:

At Commission of a Crime.[7]—"When an accused is put on trial for a crime or misdemeanor, the correct test as to insanity is whether or not the defendant is capable of knowing right from wrong as to the particular act in question and is capable of exercising the power of choosing either to do or not to do the act and of governing his conduct in accordance with such choice."

Before Trial.[8]—"He is not considered a lunatic or insane if he is capable of understanding the nature and object of the proceedings against him, and if he rightly comprehends his own condition in reference to such proceedings and has sufficient mind to conduct his defense in a rational or reasonable manner, although upon some other subjects his mind may be deranged or unsound."

Before Judgment.[9]—"A person that becomes lunatic or insane after the commission of a crime or misdemeanor shall not be tried for the offense during the continuance of the lunacy or insanity. If, after the verdict of guilty, and before judgment is pronounced, such person becomes lunatic or insane, then no judgment shall be given while such lunacy or insanity shall continue. And if, after judgment and before execution of the sentence, such person becomes lunatic or insane, then in case the judgment be capital, the execution thereof shall be stayed until the recovery of said person, from the insanity or lunacy. In all of these cases, it shall be the duty of the court to impanel a jury to try the question whether the accused be, at the time of impaneling, insane or lunatic."

Before Execution.[10]—"The defendant before execution is to be regarded as sane and not lunatic, when he has sufficient intelligence to understand the nature of the proceedings against him, what he was tried for originally, the purpose of his punishment, the impending fate which awaits him, and a sufficient mind to know any facts which might exist which would make his punishment unjust or unlawful, and sufficient of intelligence to convey such information to his attorney or to the court. When he has not such intelligence and mental ability he is to be regarded as insane or lunatic by the verdict of the jury, if so found, and his execution stayed or prolonged."

If the question of insanity is brought to the attention of the court, it is mandatory to impanel a jury of 12 and they pass as to a defendant's sanity.

A person charged with a criminal offense and found "insane" by a jury is committed until such time as he is totally and permanently recovered. Upon recovery, and after he has been found sane by a jury, he has to be returned to the court to stand trial on the indictment. Usually this is nolle prossed, as the witnesses have disappeared during his hospitalization. Naturally if there is a prospect of the electric chair it is the desire of the defense attorney to find his client insane. Then, on his return from the hospital, the "heat is off" the case, files lost, or witnesses scattered.

We have contended that we are unable to answer the question: "Is a man totally and permanently recovered?" Accordingly commitment may mean a life incarceration, although the offense on which the indictment was based may be minor. An example was a person who was serving 6 months in the Cook County Jail for breaking a window while intoxicated. He became psychotic in jail, a jury was impaneled and he was committed to the psychiatric division of the Illinois Southern Penitentiary in 1941. He is still there although the presiding judge and the Attorney General both have written the State's Attorney of the county where the prison is located, requesting that this prisoner be transferred to a civil institution. Another prisoner, likewise serving a 6 months' jail sentence, who was also adjudicated insane at the same time, was soon afterwards transferred to a civil institution. On misdemeanor charges in Chicago, a mayor's pardon, if the person becomes mentally ill, is obtained and the person is committed civilly. At the present time a case is before the Supreme Court for an opinion on this wording, "totally and perma-

[7] People *vs.* Lowhone, 292 Ill. 32.
[8] People *vs.* Freeman, 4 Denis 9.
[9] People *vs.* Geary, 298 Illinois 241.
[10] People *vs.* Geary, 298 Illinois 245.

nently recovered," and this opinion should be received in a very short time. Many persons who secure a writ of habeas corpus during a period of remission, and wish to be tried on the indictment, are continued in maximum security because of obscurity of the meaning of the words, "totally and permanently recovered."

In addition to the commitment of the criminal insane the State of Illinois enacted in 1938 the following Act for commitment of criminal sexual psychopathic persons:[11] This Act was precipitated by the perpetration of atrocious sex crimes in Chicago. A committee of the leading psychiatrists in Chicago formulated the Act and the Chicago Bar Association sponsored it. This Act followed the pattern of one passed in the State of Michigan the year previously. The Illinois Act is as follows:

820. Definition.—All persons suffering from a mental disorder, and not insane or feeble-minded, which mental disorder has existed for a period of not less than one (1) year, immediately prior to the filing of the petition hereinafter provided for, coupled with criminal propensities to the commission of sex offenses, are hereby declared to be criminal sexual psychopathic persons.

821. Jurisdiction.—Jurisdiction of criminal sexual psychopathic persons charged with criminal offense is vested in the Circuit Courts outside of Cook County, the Criminal Court of Cook County, the City Courts, the County Courts, the Municipal Court of Chicago, and other Municipal Courts in this state, for the purpose of conducting hearings for commitment and detention of such persons, as hereinafter provided.

822. Petition—Endorsements.—When any person is charged with a criminal offense and it shall appear to the Attorney General or to the State's Attorney of the County wherein such person is so charged, that such person is a criminal sexual psychopathic person, then the Attorney General or State's Attorney of such County may file with the clerk of the court in the same proceeding wherein such person stands charged with criminal offense, a petition in writing setting forth facts tending to show that the person named is a criminal sexual psychopathic person.

823. Examination by Psychiatrist.—After the filing of the petition, the court shall appoint two qualified psychiatrists to make a personal examination of such alleged criminal sexual psychopathic person, directed toward ascertaining whether such person is criminally, sexually psychopathic, and said psychiatrists shall file with the court a report in writing of the result of their examination together with their conclusions and recommendations. A qualified psychiatrist within the meaning of this section is a reputable physician licensed to practice in Illinois, and who has exclusively limited his professional practice to the diagnosis and treatment of mental and nervous disorders for a period of not less than five years.

824. Hearing—Evidence—Commitment.—Before trial on the criminal offense a hearing on the petition shall be held and a jury shall be impaneled to ascertain whether or not the person charged is a criminal sexual psychopathic person. Such hearing shall not be had until ten days after service of a copy of such petition on the person so charged.

Upon such hearing it shall be competent to introduce evidence of the commission by the said person of any number of crimes together with whatever punishments, if any, were inflicted. If the Jury by their verdict determine that said person is a criminal sexual psychopathic person, then the court shall commit such person to the Department of Public Safety. In all commitments of male persons hereunder, the court shall direct the Department of Public Safety to confine the person so committed in the Psychiatric Division of the Illinois State Penitentiary at Menard, Illinois, or in the Illinois Security Hospital at Chester, Illinois, and the Department of Public Safety shall keep safely the person so committed until such person shall have fully and permanently recovered from such psychopathy.

825. Discharge.—After commitment, an application in writing setting forth facts showing that such criminal sexual psychopathic person has recovered may be filed before the committing court and a jury shall be impaneled to ascertain whether or not such person has fully recovered from such psychopathy. The court shall set a date for such hearing not later than ten (10) days after such petition is filed. Upon a verdict of the jury that such person has fully recovered from such psychopathy, then the court shall order that such person be discharged from the custody of the Sheriff of the county from which he was committed to stand trial for the criminal offense charged against such person.

Upon a verdict of the jury that such person has not recovered from such psychopathy, then the court shall order such person to be returned to the custody of the Department of Public Safety to be held under the previous commitment of such person.

7. Persons heretofore committed to the Department of Public Welfare under the provisions of this act shall be deemed transferred and committed to the Department of Public Safety.

As stated before, upon having been found by a jury to be totally and permanently recovered from his psychopathy, the accused stands trial on his indictment as in other criminal cases.

The only case we know of who was returned recovered was a white male about 30,

[11] Illinois Revised Statutes, Chap. 38, Sec. 820-825.

a hairdresser by occupation, who at the time of his arrest was found, in an automobile, nude, performing the act of fellatio on a 16-year-old boy, also nude. At the psychiatric examination he readily admitted such behavior over an extended period of time. He was committed as a criminal sexual psychopath, and after about 4 years filed a petition that he had recovered. His behavior in the psychiatric division was without demerit and it was recommended that he be returned to court as recovered. A jury, on testimony of the prison psychiatrist, found him totally and permanently recovered. He pleaded guilty and the judge gave him 5 years' probation. From last reports he has made a good social adjustment.

The 2 psychiatrists who examine persons suspected of being sexual psychopaths are appointed by agreement of the court, in that under an opinion of the Supreme Court a judge cannot appoint a psychiatrist for the court as in that case it would be mandatory for the jury to give more credence to his testimony than to other psychiatrists selected by the state or defense.

The opinion reads, in part:[12]

> . . . . The Court erred in permitting the State to show by the doctors appointed by the Court to examine the defendant, that he refused to allow them to examine him touching on his insanity. This was a privilege that the law guaranteed to the defendant. There is no law in this state that authorizes or permits a court, either on his own motion or on motion of a party to any civil suit or proceeding, to appoint alienists to examine a defendant or a party to such a suit with a view of qualifying them to testify as the court's witness for or against such party as to his mental or physical condition. It is apparent that, if the Court permitted either on its own motion or on that of the people, to select experts to examine a defendant as to his sanity, it would not be possible to keep the fact from the jury that they were the Court's witnesses selected for such purpose, and it would not be possible to keep the prosecutor from arguing to the jury that they were the really fair witnesses, and the only fair and competent witnesses testifying on such a question, and that an inquiry into the sanity of a defendant in that manner would be simply a farce.

In addition to the Criminal Sexual Psychopath Act a bill was enacted in the State of Illinois[13] in 1947 which makes it mandatory for the penitentiary system to have inmates who were incarcerated on charges of rape, incest, crime against nature, or taking indecent liberties with a child, examined before being released at the expiration of their sentences. Proceedings are then instituted in a county court by the Department of Public Safety, against inmates found to be criminal sexual psychopaths. They are then to be examined by 2 physicians in the county, not necessarily psychiatrists, and if in the opinion of these physicians they are criminal sexual psychopaths they are committed to state hospitals best suited for their care. This Act does not require that they be sent to the hospital of maximum security, which would be the Illinois Security Hospital. The Act reads as follows:[13]

> Section 1. Section 8 of "An Act in relation to the Illinois State Penitentiary and to repeal certain parts of designated Acts," approved June 30, 1933, as amended, is amended to read as follows:
>
> Section 8. It shall be the duty of the Department of Public Safety as part of its supervision of the inmates of the penitentiary system, to cause inquiry and examination to be made at suitable intervals to ascertain whether any convict originally assigned to a division other than the Psychiatric Division, has developed a condition of insanity or given evidence that he is feeble-minded with continuing criminal tendencies or has become a criminal sexual psychopath, and in the event of finding such to be the case, to transfer the convict to the Psychiatric Division for custody and treatment.
>
> Before any convict who has been confined in the Illinois State Penitentiary for the crime of rape, incest, crime against nature, or taking indecent liberties with a child or for an attempt to commit either of said crimes, is released upon the expiration of his sentence, the Department of Public Safety shall apply to the County Court of the County in which said convict is confined, to cause an examination to be made of such convict to determine whether such convict is insane or feeble-minded or is a criminal sexual psychopath and if such convict is found to be insane or feeble-minded or a criminal sexual psychopath, he shall upon the expiration of his sentence, be committed to the Department of Public Welfare for confinement in the appropriate state hospital under its jurisdiction best suited and equipped to rehabilitate and care for the inmate. Such examination shall be conducted by a commission consisting of a physician of the Illinois State Penitentiary designated by the Director of the Department of Public Safety and either one or two qualified physicians, resident in the county and engaged in regular and active practice therein, appointed by the county judge because of his or their known competency and integrity. The physician of the Illinois State Penitentiary shall, for the conduct of such examination, bring

[12] People *vs.* Scott, N. E. Reporter, 157—Ill. Ed.—326.

[13] Senate Bill 504, Illinois 1947.

with him all records of the penitentiary relating to the convict to be examined. The costs necessarily incurred shall be paid by the Department of Public Safety.

"Criminal Sexual Psychopath," as used herein, means any person, not insane or feeble-minded, suffering from a mental disorder coupled with criminal propensities to the commission of sex offenses.

Any person committed to the Department of Public Welfare, after being found insane or feeble-minded and confined in a State hospital, as before provided, if found by the Department of Public Welfare to have recovered shall be dealt with in the manner now provided by law for the discharge of persons confined as insane or feeble-minded in any State hospital for the insane or feeble-minded, who have recovered.

Any person committed to the Department of Public Welfare, after being found to be a criminal sexual psychopath, and confined in a State hospital, as before provided, if found by the Department of Public Welfare to have recovered shall be dealt with in the manner now provided by Section 6 of "An Act to provide for the commitment and detention of criminal psychopathic persons," approved July 6, 1938, as amended, except if the jury finds he has recovered, he shall be discharged from the custody of the Department of Public Welfare, and if the jury finds he has not recovered then the court shall order that he be returned to the Department of Public Welfare to be held under the previous commitment.

Under these Acts a criminal sexual psychopath is not defined. From the wording, anyone given to fornication, prostitution, homosexuality, fetishism, exhibitionism, peeping Tom, etc., for a period of one year, may be committed until such time as he is totally and permanently cured of his psychopathy.

The Behavior Clinic,[14] which is the psychiatric clinic of the Criminal Court of Cook County, examined several of these persons. Some have cooperated and wanted to be committed; others refused to talk at all; others refused to discuss the issue, but in other ways were cooperative.

Naturally many persons will deny the allegations, some on advice of counsel, or will have a rational explanation of their acts. The usual answer is alcoholism: "I was drunk and don't remember what I did." "I had to urinate and was so doing when arrested." Sometimes it is necessary to introduce witnesses and previous confessions to sustain the State's position. Then, by means of a hypothetical question the State's Attorney may bring in the evidence so introduced asking—by a hypothetical question—if such person would be a criminal sexual psychopath. The jury, of course, knows that he is referring to the defendant, although not calling him by name.

First of all, what constitutes a sexual psychopath? In our opinion:

1. He must have been guilty of an aggressive sexual act against minors, or an aggressive sexual act against society.

It must be:

2. A continual behavior pattern.
3. Not a mutual sexual relationship between adults.
4. Not an isolated sexual act.
5. Not alcoholism.
6. Not insanity or feeble-mindedness.

The criminal code makes no distinction between feeble-mindedness and mental illness. All are committed as insane and the same legal tests apply. If a prisoner has ever been adjudicated, *i. e.*, insane, feeble-minded, incompetent, senile, inebriate, etc., a sanity trial is held, restoring the civil rights of the individual before continuing with the criminal proceedings.

A brief description of a few of the cases we have testified in follows:

(a) A 32-year-old white married male, with 3 children, who from the age of 16 has repeatedly exposed himself in theatres and also to small girls. In the theatres he would move to a seat near a girl whom he described as "good-looking" and attractive. He would then expose himself, and later masturbate so that she could see him. He repeated this about every 3 or 6 months except for 5 years in the Army. While in service he stated that he was so busy that he didn't have time for such practices. The home situation was bad, in that he was forced to marry his wife and she ran away with a truck driver while he was in service, but accepted his allotment. In his words, the women sometimes showed interest and watched; sometimes helped him along by performing the act themselves; sometimes permitted familiarities; sometimes showed disgust and walked away; and on 3 occasions reported him to the management, at which times he was arrested and given small fines. He got a thrill out of the reaction of the women to whom he exposed himself. The present proceedings were instigated by his mother when he was indicted on a rape charge. He, himself, wanted help but said he didn't want to be sent away for life.

(b) A 56-year-old music teacher and church organist, a son and brother of Lutheran ministers,

[14] Insanity and the Criminal, William H. Haines and Harry R. Hoffman, Med. Clinics of N. America, January 1945.

whose only heterosexual love affair was an infatuation with a female traveler in the same compartment en route from Paris in World War I. Her memory was always with him. He wrote letters constantly to her, which were never answered. He never had a heterosexual experience. Many years ago he was arrested and convicted for playing with the genitalia of a small boy while at a summer resort. Psychiatric supervision was advised at that time. For the past 25 years he has embraced and had sexual relations intracrurally with some of his 12-14-year-old male pupils. This behavior pattern continued until one small boy told his parents, and the present indictment resulted. He had been advised to marry, but felt it was wrong unless he loved the girl. His greatest thrill was in "feeling and embracing young boys." At times he encouraged them to have sexual relations with him. He felt he wanted help and at times had seen psychiatrists for short periods.

(c) Another had sexual relations from behind, between the legs, with an 8-year-old girl in the neighborhood, threatening her if she told, and giving her candy. This continued until one day the child told a relative and he was apprehended. His only excuse was he "was too drunk to remember." He had been arrested many years before, confessed and served a short term for rape of a 10-year-old girl. At that trial he denied his previous confession, stating "he did not want to make a liar out of the girl at that time." The complaining witness was precocious and told with details of the various episodes. On the basis of her testimony he was committed.

(d) A soldier who was discharged from service because of many indecent exposures. Before entering service, and after, he had behaved as an active and passive homosexual, sometimes for pay, sometimes gratis, on Skid Row. At times he engaged in homosexual relationships with young boys. After repeated acts he was apprehended. His family and he felt that he needed medical supervision.

(e) A white male, 67, who served 5 years in New York State for sodomy. His present difficulty occurred when he had sexual relations with a 9-year-old boy over a long period of time. When he transferred his affections to other children he claimed this 9-year-old informed on him. He denied the offense to the court and to the psychiatrists, and because of his denial we were unwilling to classify him as a sexual psychopath. We were not called in court to listen to the boy's testimony. He was given a sentence of 5 years in the penitentiary on the charge.

Frequently we have received orders to examine persons who have refused to cooperate and wanted to be tried on the issue. Several have been found not guilty. One person, a graduate of a well-known college in the East, captain of his baseball team at college, and an ex-lieutenant in the Navy, was indicted on two charges of crime *vs.* children. He had molested children in picture shows for years. His attorney pleaded him guilty on the two charges, but advised him not to talk to psychiatrists. The court found him guilty of crime *vs.* children, and sentenced him to 1-10 years in the penitentiary.

Another, a dentist who had just completed a term of 7 years and 3 months of a 1-10 year sentence on a charge of crime *vs.* children, was again indicted for crime *vs.* nature. On the advice of his counsel he refused to cooperate in the examination to determine whether or not he is a criminal sexual psychopath. He was cited for contempt of court and his case is now being taken to the Supreme Court for an opinion. If an opinion is rendered that he does not have to cooperate, and he is sentenced to the penitentiary, he can then be re-examined on completion of his sentence.

Needless to say, one reason for the commitment of these persons is prevention of similar sexual acts in the community: One person committed homosexual acts on small boys. One of these boys in turn was arrested for an assault on a 5-year-old girl. This boy, 12 years of age, admitted that he tied the girl on the bed in his home, cut her clothes off with a knife, put his penis between her legs and attempted in vain to put it in her rectum and vagina, but did succeed in putting it into her mouth. This defendant when asked why he molested young boys replied that "they insisted, so I did so."

There are many other cases where an adult indulged in acts of fellatio and homosexuality with minors. The minors in turn corrupted other minors until the whole community was involved. An example of this is the recent killing of a 7-year-old boy by a 13-year-old because he would not perform the act of fellatio.

In conclusion, Illinois has a "double-barreled" attack on the sexual psychopath:

1. The issue may be raised before trial on his indictment and the sexual psychopath committed as a criminal sexual psychopath. He still must stand trial on his indictment after his release as totally and permanently recovered from his psychopathy.

2. He may serve his sentence on his indictment and if his behavior is such while in the penitentiary as to warrant it, he may be found to be a criminal sexual psychopath on completion of his sentence.

However, the term "criminal sexual psychopath" needs clarification.

A comparison of the legislation enacted by the various states in connection with the sexual psychopath has been prepared by the Chicago Bar Association.

POSTWAR PSYCHIATRY AND NEUROLOGY IN VIENNA

ERWIN STRANSKY, M. D., VIENNA

EDITOR'S NOTE.—Upon request, Dr. Erwin Stransky, professor emeritus in the University of Vienna, provided a summary review of psychiatric and neurological work in the Vienna school since the spring of 1945, that is, since the end of the Hitler domination. The literature covering the work of this period, carried on literally amidst the ruins, is amazingly rich. Dr. Stransky's report was made with the collaboration of his assistant, Dr. Urschütz, who painstakingly abstracted the literature. Some hundred contributions were selected, and from among them the following brief notes are compiled. Because of the exigencies of translation and editing, publication has been unavoidably delayed, and unfortunately references to work of the past year are not included.

The first postwar meeting of the Vienna neurologists and psychiatrists was held at the University in the summer of 1945. At this meeting, Kauders, who had recently succeeded Pötzl as director of the University clinic, discussed "The Vegetative Nervous System and the Psyche." He emphasized their mutual influences, particularly the effect of psychic upon bodily processes, in which the vegetative sphere plays both an effector and an intermediate role, representing an important liaison between the psyche and the phylogenetically younger centers and tracts of the central nervous system. Kauders' material will appear later in book form.

On the basis of his own observations and those made in conjunction with Frau Dr. Weil and Dr. Waldschütz, Stransky found with great frequency symptoms of hyperthyroidism and hyperirritability of the facial nerve in patients of the neurological clinic Rosenhuegel, which had been so heavily damaged by the war. He considers metabolic changes responsible, especially deficiency of essential vitamins and more particularly A, B_1, B_2, C, and D, those deficiencies being due to substandard diet. Schnetz and Lauda confirmed these views but emphasized also psychological factors.

Numerous studies on the vegetative nervous system have been reported. Polzer and Schober discussed Bainbridge-type crises. The physiology and pharmacology of the thyroid were discussed by von Brücke; and thyroid disorders dependent upon nutritional changes were studied by von Holler and Scholl. These authors considered protein and Vitamin A deficiencies responsible for numerous cases of goiter, as well as myxedema syndromes. Von Schacherl considers that in such cases mutual reactions of the various endocrine systems are always involved and demand appropriate treatment measures. Surgical treatment would be indicated only on the occurrence of heart symptoms and diarrhea.

Stransky calls attention to the severe lowering of the nutritional standards in Austria as compared with conditions in Switzerland. He emphasizes the seriousness of the lack of meat proteins, globulins, and fats for mental workers, particularly physicians and medical personnel, who must also do physical work. In this connection, such substances as caffein and thein are not only less harmful than nicotine and alcohol but become almost indispensable for mental workers and should therefore not be regarded as luxuries.

Discussing intellect and thymopsyche Stransky points to the dependence of noöpsychic activities upon thymopsychic conditions and insists that in test observations, as generally in judging the mental capacity of an individual, this relationship should be given much more attention both by the clinician and by the psychologist than has commonly been the case. Kauders points to the extreme importance of psychotherapy, which he places at the focal point of all his didactic procedure. Much notice has been taken of articles on "ärztliche Seelsorge" by Frankl, who underwent all the horrors of the concentration camp. He calls his method logotherapy, derived to some extent from Heidegger's existential philosophy and possibly also from the principles of Dubois, and which is sharply distinguished from Freudian and Adlerian teachings.

In a contribution on "subordination in psychotherapy of the several life epochs" Stransky discusses the subordination-authority relationship in psychotherapy, dealt with monographically by him in 1928 but now

particularly with regard to psychotherapeutic methods with different age groups.

The new chief of the University Psychiatric Clinic, Prof. Kauders, systematically emphasizes the mutual relationships of clinical psychiatry, psychology, and psychotherapy. His predecessor, Pötzl, under whom Sakel made his first experiments with shock therapy, has discussed the rationale of the various shock methods, taking account of earlier studies and theories such as Wagner-Jauregg's anoxia explanation, the vascular dilatation theory of Gärtner-Wagner, and the contribution of Stransky and Jellinek with reference to electroshock. Kohlman applied Rorschach and Wartegg tests to psychotic cases receiving electroshock and observed a narrowing of affectivity in schizophrenics and a widening of affectivity in depressions. Stransky reports on the so-called Ilberg's phenomenon—group echopraxy as observed particularly in schizophrenics and which suggests relationships with the collective unconscious of Jung.

Reisner points out that in psychoses associated with pernicious anemia mental symptoms generally appear only when a funicular myelosis is present, and he concludes that, making allowance for predisposition, functional and anatomical changes in the central nervous system are responsible for the psychotic symptoms. These symptoms are also influenced favorably by liver and vitamin B_1 therapy.

Among the many casuistic contributions may be mentioned Solms' report on the electroshock cure of a paranoid-hallucinatory state which followed malaria therapy in a case of paresis and Stummer's discussion of the relations between ear affections and auditory hallucinations. Kundratitz has shown that certain convulsive attacks in childhood are not organically based but depend upon toxic or febrile states; the organic cases being revealed by encephalography. These latter react favorably to x-rays (Wieser and Hoff). In conditions of mental defect in children, not only those due to syphilis, fever therapy often had good results, particularly in combination with x-ray therapy and encephalography.

In the neurological field Kauders discusses "Amputation Stump and Phantom Limb in Spinal Transverse Section Syndrome," with detailed consideration of sensory physiology and especially of the phenomenon of allaesthesia. Brücke points to the similarity of paraesthesias in peripheral nerve injuries and the amputation phantom. Schönbauer reports two cases of phantom pains that were relieved by extirpation of peripheral neuromata in the stump; likewise two other cases relieved by extirpation of the parietal sensory centers. Schönbauer further reports some 2,000 cases of posttraumatic brain complications and found that epileptic seizures were commoner in those that had been operated upon. Stransky reports further on the treatment of multiple sclerosis by similar-type blood transfusion, inaugurated by him in 1937, and concludes that in terms of remissions, even in chronic cases, this treatment shows more favorable results than former methods, although naturally one cannot speak of a cure. Wiedmann reports two cases of brain syphilis in which fever therapy was contraindicated and which reacted favorably to x-ray therapy. Reisner discusses polyneuritis of Guillain-Barré type in suppurative processes in the skin; and Weil reporting a recovered case of Landry's paralysis discusses the multiform relations of this condition and the Guillain-Barré type. Simma found the histamine test of value in distinguishing peripheral organic from functional anaesthesias. Rottmann advises surgical treatment in peripheral nerve injuries even before the usual period for spontaneous recovery has elapsed if after 4-6 months rapidly progressive atrophy appears, together with complete degeneration reaction.

Zaunbauer emphasizes the value of encephalography in posttraumatic brain pathology on the basis of 6,700 cases. The presence of brain abscess could be diagnosed in all but three cases. Krepler recommends combined penicillin-sulphanimide treatment for pneumococcus meningitis. Beichl reports an interesting case with unusual vegetative and segmental disturbances during the convalescent phase of myelitis, leading to the assumption that the sensory and vegetative innervation of the axillary, anogenital, and oral zones might be especially resistant. Nowotny discusses recent views of the shock syndrome (*Kommotionssyndrom*) and finds that most surgeons tend to accept the circulation theory.

Kundratitz on the basis of inoculation tests indicates a relationship between herpes zoster and varicella. Domanig succeeded in transplanting the hypophysis from a human subject killed in an accident under the abdominal wall of a patient suffering from diabetes insipidus with good results. Feiler reported remarkable improvement in a case of brain tumor following exhibition of manganese chloride (Walbum method). Kauders made similar tests in multiple sclerosis on the basis of the action of the metal salts in causing dehydration of the brain.

There remains to make special mention of a commemoration service on his birthday May 7, 1947, in honor of Wagner-Jauregg, who died in 1940 at the age of 83. The memorial meeting was arranged by the Vienna Society of Physicians and the newly organized Vienna Psychiatric and Neurological Association under the leadership of Kauders. A memorial address to his great teacher was delivered by Stransky. The main feature of the celebration was an address by Kauders, in which he dealt comprehensively with Wagner-Jauregg's great contribution, namely, the malaria therapy, which has undergone further development, especially by Kauders himself in connection with epidemic poliomyelitis.

Professor Kauders, who was made an honorary member of The American Psychiatric Association at the 1948 annual meeting, is president of the Austrian-American Society in Vienna, through which he makes the relations between the two countries his special concern.

PSYCHOLOGICAL AND PHYSIOLOGICAL EFFECTS OF INTRAVENOUS PERVITIN[1]

JULIUS LEVINE, M.D., MAX RINKEL, M.D., AND MILTON GREENBLATT, M.D.

INTRODUCTION

Pervitin (d-n-dimethyl phenethylamine hydrochloride) was first prepared by the Japanese scientist, Ogata. In 1938, several German investigators reported that the action of pervitin was similar to benzedrine. It was superior to the latter in its central euphoric and waking effects without producing the side reactions of benzedrine. In 1943, Ivy and Goetzl(1) published a review of the literature on pervitin in which the chemistry, toxicity, dose, physiological and psychomotor effects as well as uses and contraindications were discussed.

In 1943, Dodd and Prescott(2) published the results of their investigations in a series of 54 postoperative cases. An EKG was taken in 3 of the patients, 2 of whom had the maximum dose of 40 mg. i.m. No significant lasting changes were observed. In one case, a shortened RST segment in Lead II, and isoelectric waves in Leads II and III were noted as transient phenomena.

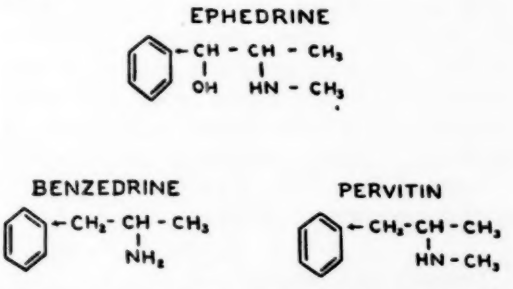
Pullen(3) studied the effects of the drug by taking 400 blood pressure determinations on an unstated number of patients. In his normal group 6 mg. caused a rise of 5-10 mm. of mercury; larger doses rarely caused a rise over 20 mm., the maximum elevation being reached in 2 hours with return to normal in 8 to 10 hours.

Davidoff(4), in 1943, stated that pervitin is a more potent central nervous system stimulant than benzedrine. The addition of the methyl group to the amine radical is said to render the compound more cephalotropic and less sympathecotropic.

METHOD

Our investigation of the effects of pervitin on psychiatric patients was undertaken in order to ascertain its physiological, psychological, and psychiatric actions with the view toward its possible employment as a diagnostic aid, therapeutic agent, or both. The actions of the drug were not explained to the patient nor was suggestion utilized.

Comparative studies were made with sodium amytal and benzedrine in order to determine similarities or differences of response, and their advantages or disadvantages.



Structural formulæ of ephedrine, benzedrine, and pervitin showing the chemical relationship.

Following preliminary trials with doses of pervitin from 5 to 40 mg. intravenously, 20 mg. was selected as the optimum dose. This was given intravenously in 1.0 cc. sterile water. Prior to injecting the drug, blood pressure and pulse were recorded; following administration these were taken at 2-minute intervals for one hour, then at 15- to 30-minute intervals for 2 hours, and at hourly intervals for 24 hours. Electrocardiograms were done in 16 cases and electroencephalograms in 10 cases.

MATERIAL

Pervitin was administered to 75 patients selected from the wards and O.P.D. of the Boston Psychopathic Hospital. The intravenous route was chosen in order to study immediate, direct effects on the patient and to facilitate its comparison with sodium amytal, which is also given intravenously in the psychiatric procedure known as "narcosynthesis."

[1] From the Department of Psychiatry, Harvard Medical School, and the Boston Psychopathic Hospital, Dr. Harry C. Solomon, director.

Pervitin was kindly supplied by courtesy of Smith, Kline and French Laboratories, Philadelphia, Pa.

The patients were divided into 2 groups as follows:

1. *Psychotic group*	
(a) Dementia præcox	32 cases
(b) Manic-depressive psychosis	9 cases
(c) Involutional psychosis	1 case
2. *Nonpsychotic group*	
(a) Psychoneurosis	23 cases
(b) Psychopathic personality	10 cases
Total	75 cases

Results

Pervitin 20 mg. i.v. produced the following characteristic clinical effects: dilated pupils, circumocular twitchings, facial pallor, dryness of mouth, anorexia, cold clammy hands or dryness of the skin, elevation of blood pressure and elevation or decrease in the pulse rate. After a short initial period of tension, relaxation generally ensued accompanied by increased alertness and awareness of auditory and visual stimuli, elimination of sensation of fatigue, and finally sleeplessness.

Some of the effects of pervitin were more carefully studied as follows:

I. Circulatory Changes:

The blood pressure reached its peak within 2 minutes following the injection, ranging from 10-92 mm. Hg. increase in the systolic pressure with a relative increase in the diastolic pressure (the average systolic elevation was 40 mm. Hg.). The blood pressure began to fall at the end of 4 minutes. After the initial drop, the decrease was gradual and the pressure remained above the base level for 24 to 36 hours.

Except for an increased number of ventricular extra-systoles and increased rate, changes in the EKG were observed in only one of 16 cases in which pulsus bigeminus appeared, lasting 20 minutes.

II. Electroencephalographic Changes:

There was a marked increase in muscle tension 20 seconds after injection, followed by a period of relaxation. There was no change in the frequency of the cycles and good alpha rhythm was maintained throughout. During the period of overtalkativeness when patients were restless, much blinking artefact was introduced into the EEG, and the alpha waves were thereby blocked. Most striking was the absence of gross changes in the EEG despite marked clinical changes in mood, deportment, and psychomotor activity.

III. Psychophysiological Changes:

Immediately following the injection, the patient described lightheadedness, "as though a pressure had been removed from the head." Several patients remarked that they were "floating through the air." The hypomanic and tense patients felt more relaxed and one stated that he was relaxed to the point of drowsiness. Generally there was increased wakefulness and elimination of fatigue so that patients who received the drug in the afternoon required a sedative at bedtime. An interesting decrease in sensitivity to pain was noted. For example, patients who accidentally struck their hand against the chair or desk expressed surprise at their increased tolerance to pain. This was noted especially in tense, apprehensive patients who characteristically shied away from all tests having the possibility of being harmful.

The majority complained initially of dryness of the mouth, thirst, tightness in the chest, and felt that breathing was difficult. Ten to 15 minutes later, however, respiratory symptoms were relieved. There was increased acuteness of sight and hearing, the patients remarking that they were more aware of objects in the room and of conversation in an adjoining room. There was a feeling of emptiness in the epigastrium with loss of appetite which usually persisted for about 24 hours.

Except for 5 patients, all showed an immediate change in behavior consisting of restlessness and overtalkativeness. The recall of emotionally charged material was dramatic, lasting from 20 to 30 minutes on the average and in several patients continuing up to 3 hours. The 5 exceptions were all psychotic patients, 2 of whom had severe anxiety-tension states with blocking of speech after pervitin was given. The other 3 were deteriorated cases of dementia præcox in whom physiological changes were evident after pervitin without changes in verbalization or general behavior.

(a) *Psychotic Group.*—Delusions became more intensified and florid phantasies were

brought to the surface and elaborated. The paranoid, who was inaccessible through his defensive, evasive, vague behavior, immediately verbalized his delusions with accompanying emotional discharge and increased psychomotor activity. The immediate response of the manic was usually, "I feel relaxed." The push of speech, overtalkativeness, and overactivity was lessened. The catatonic was aroused from stupor and became talkative.

The following cases illustrate the manner in which pervitin aided in eliciting psychological material.

CASE 1.—O. A., female, age 39 years, was anergic, depressed and withdrawn for 8 weeks. She was incapacitated and unable to care for her family and household. Her husband was serving a term in jail for alcoholism and assault and battery on her. In the hospital she displayed no interest in patients or ward activity, stating that she was seclusive because she was shy and retiring. According to the family, she had expressed vague suspicions in regard to neighbors and had refused to allow her child age 10 years, to attend school. Delusional material was not elicited from the patient. Diagnostic impression was *manic-depressive depressed.*

Immediately following administration of 20 mg. of pervitin, the patient screamed and became panicky. She accused the interviewer of trying to kill her, and of being in league with other persons who planned to harm her. She wept, ranted furiously, and repeatedly threatened the interviewer. She expressed delusions of persecution as well as guilt for having her husband prosecuted, and having failed to make a satisfactory home for him.

In this case pervitin proved an aid in eliciting the patient's paranoid content and establishing a diagnosis of *paranoid state.*

CASE 2.—C. C., age 29 years, single, female, was tense, overtalkative, tearful, and seclusive. The patient, a life-long ascetic, had been overprotected by a mother who was widowed when patient was 3 months of age. For the past year the patient had the urge to defecate whenever she sat. She had repeated unavailing visits to the bathroom. Six weeks prior to admission a suspension of the uterus was done in order to relieve the pressure symptoms on the rectum. Two days postoperatively the patient became tense, fearful, and stated she had had a "shock." She was self-accusatory and expressed fears of losing her mother. She blocked when asked to state what had upset her. Diagnostic impression was *dementia præcox turmoil.*

Pervitin (20 mg.) was administered intravenously and the patient spontaneously verbalized a phantasy as follows: She had been pregnant and given birth to a baby as a result of surgery. She brought up conflicts in relation to a traumatic sexual incident at age 5, involving her uncle, and expanded greatly on sexual ruminations.

CASE 3.—M. L., age 20 years, female, single. Patient's social and emotional background were unstable. Father was a chronic alcoholic, who had sexually assaulted the patient in childhood. On admission, patient mumbled in an unintelligible monotone with short periods of clarity and relevance. She was fearful and agitated. No hallucinatory or delusional content was elicited. Diagnostic impression was *hysterical delirium.*

Following administration of 20 mg. pervitin, she spoke more intelligibly revealing delusions of persecution and stating that there was a devil in her head, directing her into asocial and amoral activities. As the period of excitement lessened, she indicated that the devil was a phallus that caused her father to attack her and the ward nurse to steal her voice. This outpouring of delusional content was accompanied by weeping, tension, and fear. In subsequent interviews the delusions could be discussed without resorting to pervitin. Diagnosis: *dementia præcox, paranoid.*

These cases illustrate the dramatic effects of pervitin in eliciting new data of diagnostic importance from recalcitrant or blocked patients, helpful in formulating the nexus of active conflicts which were unknown before pervitin and might not have been discovered by ordinary interviews.

(b) *Non-Psychotic Group.* After receiving pervitin, patients experienced a general feeling of relaxation with euphoria, relief of tension, and increased alertness. There was a tendency to produce grandiose phantasies in regard to future plans with a feeling of renewed confidence in one's abilities. Forgotten memories and traumatic experiences were recalled, mild depressions were allayed, without subsequent amnesia for the interview. Patients who resisted discussing painful memories related their conflicts and maladjustments in detail. The neurotic displayed evidences of aggression, and was imbued with confident self-assertiveness. At the same time, he manifested a carefree attitude. The psychopath talked freely, boastfully, without covering up his asocial behavior.

It is of interest how pervitin affected 2 cases of hysterical amnesia. Myerson(5) employed in combination sodium amytal 200 mg., and benzedrine, 15 mg., or pervitin 10 mg. orally for amnesic states with immediate good results. One of our patients showed no immediate response, but 16 hours later, following a restless, sleepless night, recovered from her amnesia. The second patient had an amnesic fugue for 2 days ushered in

by an epileptiform seizure. Following recovery from the fugue, she had no memory for events of the preceding 6 months, during which period she married. Shortly after the administration of pervitin, in a sobbing overwrought state lasting one hour, the patient recalled the disturbing events related to her marriage and developed good insight into the dynamic causes of her amnesia.

Comparative Studies

I. Comparison of Sodium Amytal i.v. with Pervitin i.v.

Thirty-five of the 75 cases studied had sodium amytal (250-500 mg.) i.v. either before or after pervitin. In most patients who were unproductive or resistant with sodium amytal, pervitin resulted in a free ventilation and release of pent-up or inaccessible material. In some patients the information obtained with the aid of pervitin corroborated that obtained with sodium amytal. In contradistinction to the drowsy, intoxicated state induced by sodium amytal, the productivity with pervitin was accompanied by intensified affect. An additional factor in favor of pervitin over sodium amytal was ease of administration. Pervitin is injected rapidly in 1 cc. amount, whereas sodium amytal must be given slowly over a period of several minutes with attention to the drowsiness or depth of narcosis.

Sodium amytal produces a hypnotic state referred to as "loosened psychic tension," in which the patient regresses to a state of infantile credulity and dependency(6). Amnesia for the interview is common. Pervitin, on the other hand, relaxes inhibitions and produces an emotionally charged interview with appropriate affect and with no subsequent amnesia.

The following cases illustrate the advantages of pervitin over sodium amytal:

Case 4.—S. M., age 18, male, was admitted as the result of a suicidal attempt with carbon monoxide. He was an adopted child, and had had full knowledge since the age of 4 of the unhappy circumstances surrounding his adoption. His foster parents were divorced when patient was 5, and he lived with his foster mother, who was an obsessive-compulsive neurotic. She tried to regulate and control every thought and action of the patient. He had been a psychiatric problem since age 4. He had always been surly, cynical, self-deprecatory, and inaccessible. He regarded his failure at suicide as further proof of his inadequacy.

Only under deep narcosis with i.v. sodium amytal (marked somnolence) and with considerable prodding was the patient able to verbalize his hostility toward his mother and society, as well as his repeated failures and frustrations. Suicidal ideas were expressed. There were 3 such interviews with sodium amytal. The patient remained depressed, surly, and inaccessible and considered himself a hopeless failure.

He was then given 20 mg. pervitin with dramatic response. Depression was immediately lifted and patient became euphoric, verbalizing his phantasies and conflicts freely. He expressed his ambivalence toward his mother, on whom he was overly dependent, and told how her obsessiveness frustrated his attempts towards attaining independence and maturity. He remarked on the improvement of his mood with pervitin whereas he had been depressed during and after sodium amytal. There was no amnesia and the patient subsequently became accessible for psychotherapy. He was grateful that the therapist had aided him in breaking down his defenses.

Case 5.—P. L., 30 years, single, male; patient and his brother were committed for observation by the court following arrest on charge of vagrancy. They had been sleeping in dumps, scavenging through garbage pails and barrels for saleable junk.

The patient was uncommunicative, and mute except when he desired a cigarette. The brother was clearly psychotic and folie à deux was suspected. Psychometric studies corroborated previous impression that the patient was a moron. Two sodium amytal interviews failed to change his speech or behavior.

Several days after the last sodium amytal injection, patient was given 20 mg. pervitin. His response was one of fearfulness, tension, and talkativeness. He pleaded for freedom, clemency, and safety. He had never harmed another person, did not intend to harm the doctors, for the doctors were good people. "Please, good, honorable doctors, I know, believe me, you do not kill! you are good! I am honest. I have not killed! Honorable doctors, I know, you do not kill!"

His pleas were repetitive and highly charged emotionally. The fearfulness and defensiveness of a previously mute, withdrawn patient pointed strongly to a diagnosis of *schizophrenia.*

The following case illustrates the use of pervitin and sodium amytal in close sequence; the barbiturate was used to quiet the intense response to pervitin. This procedure was resorted to in 6 of our patients.

Case 6.—K. B., 22-year-old combat veteran, was admitted to the hospital following his arrest for assault and battery on 3 girls. He was retarded, confused, and bewildered. Sodium amytal alone failed to produce material nor did he improve spontaneously. After one week he was given 20

mg. pervitin. He remained unchanged for one hour, then suddenly began to abreact his combat experiences in which he had killed an enemy soldier by bayoneting him in the back. His irrational and combative behavior which led to his arrest was lighted up by a trivial event which we found to be connected to his combat experience. Psychotherapy was made possible by the material he produced with pervitin.

In the remainder of the interview, tension and excitability mounted to such a degree that 250 mg. of sodium amytal was given intravenously in order to calm the patient and permit the interview to continue. Psychotherapy was made possible on the basis of the facilitated pervitin interview.

This method was successfully employed in other patients in whom uncontrollable tension and hyperexcitability were induced by pervitin. On the other hand, some patients who became somnolent or unproductive with sodium amytal were given pervitin with subsequent awakening and satisfactory verbal and emotional expression.

II. Comparison of Benzedrine i.v. with Pervitin i.v.

Fifteen patients were given benzedrine; 8 received the drug 2-3 days before pervitin, and 7 received the drug 2-3 days after pervitin. Benzedrine was given i.v. in doses from 20-40 mg. Initially the patient was given 20 mg. of benzedrine with increase by 10 mg. at 2- to 3-day intervals up to 40 mg. in the same patient. This was done in order to ascertain whether increasing the benzedrine dosage would give an effect similar to pervitin; for we had observed that pervitin was more potent than benzedrine for equal dose.

Fourteen of the 15 patients who were given benzedrine failed to verbalize as well as they did with pervitin. Patients who were given benzedrine after having experienced the effects of pervitin remarked on the failure of benzedrine. Although overtalkative when given benzedrine, emotionally charged material was usually not obtained, and the salutory effect on the patient for further psychotherapy was largely lacking. Unlike pervitin, the material obtained with benzedrine lacked depth and personal significance.

Summary and Conclusions

1. The physiological and psychological effects of i.v. pervitin, sodium amytal, and benzedrine were studied in 75 psychiatric cases.

COMPARISON OF PERVITIN, BENZEDRINE SULFATE AND SODIUM AMYTAL
(Intravenous Administration)

	Pervitin	Benzedrine sulfate	Sodium amytal
(1) Dose	20 mg.	20-40 mg.	250-500 mg.
(2) Method of administration	Rapid injection	Rapid injection	Slow injection
(3) Mental state	Alert Sleepless	Alert Sleepless	Drowsy
(4) Productions	Spontaneous. Intense emotional discharge	Spontaneous. Slight emotional discharge	Often require prodding. Emotional discharge
(5) Affect	Appropriate	Shallow	Sometimes inappropriate
(6) Recall of interview material	Complete	Complete	Amnesia

2. Pervitin has cephalotropic and sympathecotropic effects. It is a more potent cephalotropic and less potent sympathecotropic drug than benzedrine.

3. Pervitin produces an emotionally charged free flow of material, which may include painful memories, traumatic experiences, intimate personal phantasies, and delusional ideas. Most patients experience a dramatic relief of tension and feeling of relaxation. Mild depressions are often delayed. The psychologically rich response evoked by pervitin is helpful both diagnostically and therapeutically.

4. The physiological effects of pervitin include evaluation of blood pressure for 24-36 hours, alteration of pulse rate, dryness of the mouth with thirst, loss of appetite, tightness in the chest, increased awareness of the environment and of sensory stimuli, elimination of fatigue, and wakefulness.

The EKG is not significantly altered. The EEG shows no striking change in basic frequency pattern despite pronounced psychophysiological effects. There is a slight decrease in alpha wave output during the stage of tension and hyperalertness.

5. A comparison of pervitin with sodium amytal and benzedrine reveals the following:

(a) In contrast to sodium amytal, pervitin evokes a more spontaneous, richer, and more appropriate response. In some cases, when sodium amytal fails to produce a response, pervitin succeeds. With pervitin there is no loss of consciousness or amnesia for the interview. All the material dealt with during the pervitin interview may be recalled, and is available to the patient's consciousness for integration and assimilation.

(b) Benzedrine in doses of 20 to 40 mg. produces similar physiological effects as pervitin, but fails to produce the same intense psychological response. The productions with benzedrine lack the depth and personal significance of those with pervitin.

(c) Pervitin may counteract the hypnotic effect of amytal, and amytal may calm the overexcitement occasionally induced by pervitin.

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COMBINED CORAMINE-ELECTROSHOCK THERAPY IN THE TREATMENT OF PSYCHOTIC EXCITEMENT [1]

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This report deals with 100 consecutive patients who have been treated by a new method of shock therapy on the neuropsychiatric service at The Christ Hospital, Cincinnati. In this technique the application of electroshock is preceded by the intravenous administration of 5 c.c. coramine. The method has impressed us as a means of terminating states of psychotic excitement more rapidly and more effectively than when electroshock alone has been employed.

INITIAL CASE

On January 3, 1947, a 28-year-old housewife was admitted to the Good Samaritan Hospital in a state of acute manic excitement. She had been delivered of a full-term normal child, her first, on December 22, 1946, and had been permitted to go home on the eighth postpartum day. She was unable to nurse the child, unable to sleep, to rest, or to remain in bed. She exhibited marked motor excitement, a classical flight of ideas, continuous singing, shouting, punning, rhyming, and whistling. Her mood was euphoric. She was readmitted to hospital after 3 days at home. Physical and neurological examinations were normal, and no significant laboratory findings were noted. She was given 3 electroshock treatments on successive days with the Offner apparatus to no avail. On the fourth day 2 electroshock treatments were given, and on the fifth, another. Throughout this time her acute maniacal reaction became more intense. She lost weight rapidly, and showed progressive signs of exhaustion (fever, tachycardia, dehydration) despite hydrotherapeutic measures and varied attempts at restraint and sedation. At that time it appeared that she might die of her illness.

On the following day she was prepared for an electroshock treatment in the usual way. After the electrodes were applied and the apparatus balanced 5 c.c. coramine were given rapidly into an arm vein. Within 30 seconds her face flushed and her respiratory rate increased perceptibly. The electrical stimulus was then applied, and a 45-second fit followed. It appeared identical in pattern to her previous ones. After the fit she rolled onto her belly and slept soundly for 2 hours. This was her first good sleep since the onset of her illness. When she wakened she was quiet but mystified about her surroundings. She ate heartily, but got progressively more excited as she asked questions about herself. Light restraint was replaced after an hour, and her psychomotor pressure returned in part. Her nurses estimated that she was 50% less excited than on previous days.

On the next day the same procedure was repeated except that 10 c.c. coramine were used instead of 5 c.c. A fit pattern of usual type followed, but she wakened immediately and exhibited an increase in her psychomotor excitement for the next 24 hours. It was felt that 10 c.c. of coramine had been too much, and on the following day the dose was again dropped to 5 c.c. prior to electroshock. Following this treatment she slept all afternoon and was quiet and cooperative in the evening. She slept soundly and naturally that night, and on the following day was pleasant and cooperative, though somewhat confused and restless. No treatment was given that day.

Three more treatments were given at 48-hour intervals, using 5 c.c. coramine intravenously followed by electroshock therapy. The patient became progressively more quiet and soon assumed her premorbid behavior. She was kept in hospital for 9 days after her last treatment and her confusion and memory disturbance cleared up rapidly. She soon resumed her household duties and has had no recurrence of her illness in the past year and a half.

The sudden reversal of illness in this case after the combined coramine-electroshock treatment was begun encouraged its further use. Within the next few weeks a second young woman suffering with manic excitement was treated effectively with 7 combined coramine-electroshock treatments. After the second encouraging case it was decided to employ the method in other types of psychotic excitement as well. At that time a college student was under treatment in hospital for schizophrenia.

She had become ill on a Christmas holiday in Florida. She was actively hallucinated, belligerent, uncooperative, and destructive. She developed an uncanny ability to wriggle out of restraint, tore her bedclothes, threw her food about the room, and attacked everyone in attendance. She continued in this state despite 10 ordinary electroshock treatments. The alteration in her behavior was dramatic after the first combined coramine-electroshock treatment, in that she became more tractable and less pugnacious. Her illness was a severe one, requiring almost 4 months of hospitalization during which

[1] Read at the 104th annual meeting of The American Psychiatric Association, Washington, D. C., May 17-20, 1948.

The author wishes to thank his colleague, Dr. J. Robert Hawkins, for assistance in this investigation.

time she received a total of 20 of the coramine-electroshock treatments as well as modified insulin and intensive psychotherapy, but during this entire period the destructive behavior pattern never returned. She has been free of symptoms for one year.

Another early trial of this therapeutic procedure was afforded by the case of a married nurse who entered the hospital in a state of anxiety hysteria of panic proportions.

She was wild-eyed, sat upright in bed continuously clawing at the air with her hands. She refused food and talked incoherently of death. Under intravenous sodium pentothal she told of having applied for adoption of a child 2 years previously. The agency called her one afternoon and told her that she could get the child the next day. Feverishly she set about purchasing supplies, rearranging her house, canceling appointments, and making the necessary adjustments which this surprise information required. On the next day she was introduced to the child, and identified her immediately with her own younger sister who had died in infancy. She took the child home, and despite the pleadings of her husband would not permit anyone else to touch her or approach her, in fear that this child, too, would die. She slept very little in the next 3 days and then had a dream that the child had gone to heaven and was calling to her. Her anxiety hysteria followed this dream. The material was discussed after she was wakened from the pentothal, and she appeared relieved, but in the course of the day her panic state returned. Two subsequent pentothal administrations recovered no significant new material, and despite effective abreaction she did not improve. She was then given 2 days of continuous sleep with barbiturates, but returned to her former state when the narcosis was lifted. She was then given a combined coramine-electroshock treatment. She slept for an hour after it and when she wakened the stereotyped gesticulations of her hands were gone, and she was less frightened. A total of 5 such treatments were given in the next 10 days, and she became progressively calmer and more manageable. She decided to return the adopted child to the agency and after a series of interviews returned to her home. She has had no further difficulties.

Further trials of the method demonstrated that it was of value in paranoid states when excitement was great, and in occasional selected cases of severe intractable anxiety. In agitated melancholia it has been noted repeatedly that if the symptoms of restlessness, agitation, and motor stereotypy do not respond to orthodox electroshock, the intravenous injection of coramine preceding electroshocks will often terminate these manifestations abruptly.

There appears to be no advantage in using the combined technique in cases of simple melancholia where excitement is not present, and consequently we have not adopted the method in these cases. Clinical study thus far has led to the tentative conclusion that the combined coramine-electroshock method is of value in any psychotic reaction in which excitement is a prominent element.

Technical Considerations

Coramine (pyridine-β-carboxylic acid diethylamide, nikethamide) is an analeptic drug. When it is injected into a vein rapidly the observable reactions are flushing of the face and an increase in amplitude and rate of respirations within 30 to 60 seconds. In larger doses sneezing usually follows. In the techniques employed here, facial flushing and augmentation of respiration are looked for, and as soon as one or the other is noted, the electrical stimulus is applied. In approximately 10% of cases, these overt pharmacological effects fail to appear. If such is the case, the electroshock is applied after a waiting period of 60 seconds.

There appears to be no difference in the type or duration of the convulsion whether simple electroshock or the combined method is used. Restoration of respiration following the fit is invariably quicker and more efficient when coramine is used prior to the shock. Another observation which has impressed us is that it is very rare that patients have excited postfit confusional reactions when coramine has been used. It is almost invariable that the patient falls into a sound sleep for minutes to hours following this method.

A practical consideration of great value is that the method has cut down the need for restraint markedly, and the use of packs, continuous tubs, and excessive sedation has been minimized. The method has given us the courage to treat many more patients in an open ward in a general hospital than formerly.

No analeptic drugs other than coramine have been employed thus far, but similar observations with sodium succinate (sudoxan), amphetamine, and perhaps metrazol are indicated.

We have found that a 5-c.c. dosage suffices for the great majority of patients. On rare occasions we have raised the dose to 7.5 c.c. in patients weighing well over 200 pounds and have reduced it to 3 c.c. in patients weighing less than 90 pounds.

Theoretical Considerations

The adoption of the coramine-electroshock treatment was prompted by a case of acute mania which had failed to respond to orthodox electroshock treatment. The logic of desperation stimulated a search for a more effective therapy. It was reasoned that the essential neurophysiological situation in her case, as in mania generally, was a brain which was in a state of pathologic excitation, and which was firing from many areas simultaneously and/or in quick succession at random, and which was deprived of its normal orderly integrative action on this account. It is generally agreed that in acute mania electroshocks must be given at frequent intervals and that a relatively large number are required. Why is it necessary to apply so many shocks one upon another in manic excitement? What is accomplished physiologically by these heroic measures?

The idea came to mind that the object of electroshock in these cases is to excite an already-excited cortex even further, in order to bring about an *ultraparadoxical* excitation, and consequent inhibition. The concept of the ultraparadoxical in neurophysiology is that of Pavlov(1). He described the phenomenon as follows:

> A stimulus, the intensity of which is beyond the maximum, instantly elicits inhibition, thus distorting the rule of the relationship between the magnitude of the effect and the intensity of excitation.

Pavlov pointed out that this was a useful concept in neuropsychiatry, and that it could be applied in many clinical situations. Recently the author(2) has employed it in explaining the phenomena of the narcolepsy-cataplexy syndrome, and Sargant and Shorvon(3) have employed it profitably in explanation of abreaction techniques in acute neurosis.

Reasoning, then, that the aim of electroshock in mania was to produce excessive or ultramaximal excitation, the idea came to mind of employing an adjuvant—a chemical excitant to heighten the excitatory effect of the electrical stimulus and thus to amplify it quantitatively to make it ultramaximal. The analeptic drugs were considered in this connection. Since experience(4) with the blast syndrome in combat soldiers had taught that coramine in large doses could be administered intravenously safely and effectively as an analeptic, this drug was chosen for trial. An effort was made to achieve the summation effect of chemical plus electrical excitation. Therefore the drug was administered intravenously as quickly as possible, and when the observable pharmacologic effects of skin flushing and enhanced respiration were at their height (usually 30 to 60 seconds after injection) the electrical stimulus was added. The ensuing fit has been almost invariably followed by deep sleep. Pavlov(5) regards sleep as a widespread state of cortical inhibition. It appears, therefore, that this formulation has at least a degree of theoretical validity. If one accepts the Pavlovian thesis, sleep, *i.e.*, inhibition, quickly follows pretreatment excitement, *i.e.*, pathologic cortical excitation. The sudden reversal of the neural state from excitation to inhibition is explainable by the Pavlovian concept of the ultraparadoxical state of cortical activity. Upon this basis the method was used in other forms of clinical excitement with good results, manifested by rapid diminution of excitement following as few as one or two combined coramine-electroshock treatments.

Results

The ages of the 100 consecutive patients treated by the combined coramine-electroshock method ranged from 16 to 76 years. The average was 42.7 years. The clinical types were as follows:

Agitated melancholia	23
Anxiety states, intractable	16
Schizo-affective states with excitement	12
Schizophrenia with excitement	12
Paranoid states (schizophrenic and other) with excitement	12
Acute mania	9
Senile psychoses with excitement	5
Acute confusional excitement	4
Obsessive-compulsive states with excitement	3
General paresis with uncontrolled excitement (during artificial fever-penicillin treatment)	2
Excitement with alcoholic hallucinosis	1
Excitement with psychosis with mental deficiency	1
	100

The number of combined coramine-electroshock treatments used varied from 2 to 22. The average was 7.5 treatments per patient. The schizophrenic groups required the largest number of treatments per patient. It is significant that the 9 acutely maniacal patients were successfully treated with an average of 9.5 treatments. This is definitely lower than the number of orthodox electroshock treatments required to bring the average acute manic patient to a successful cessation of the episode in our experience.

No statistical summary, however, can give a picture of the dramatic suddenness with which these various forms of excitement are often allayed after as few as one or two such treatments.

Conclusions

1. The technique of administering 5 c.c. coramine, intravenously, followed by electrically induced convulsions is reported in 100 consecutive cases.

2. The method has proved of value in reducing manic excitement quickly and dramatically with as few as one or two treatments, in contrast to the necessity for repeated electroshock treatments of orthodox type in the usual manic patient.

3. The method has also proved of value in acute confusional excitement, excitement with severe agitated melancholia, paranoid excitement, excitement with schizo-affective states, and in selected cases of intractable severe anxiety.

4. It is assumed that the theoretical basis of this combined therapeutic method is as follows: Coramine, an analeptic drug, excites the higher levels of the nervous system chemically; the electroshock stimulus excites these structures electrically. The simultaneous application of both these stimuli produces an excessive, or ultramaximal, stimulus as defined by Pavlov, and the result is the ultra-paradoxical state of cortical inhibition, with consequent abolition of the clinical symptom of excitement.

5. The method has been of value in handling excited patients on an open psychiatric ward in a general hospital, and in terminating these illnesses more rapidly.

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ELECTROENCEPHALOGRAM IN POSTENCEPHALITIC BEHAVIOR DISORDER AND POSTENCEPHALITIC PARKINSONISM [1]

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Since Gibbs(1) first reported the occurrence of diffuse high voltage slow wave activity in cases with acute encephalitis, it has become a common experience for electroencephalographers to observe similar tracings in this disorder(2) and in some cases (3) to follow the return of the brain waves to normal following clinical recovery. Recently Gibbs and Gibbs(4) reported their electroencephalographic findings in 240 cases of encephalitis. They found that in patients who did not develop seizures the EEG usually returned to normal following the acute phase of the disease. Their most striking finding was the high correlation of residual electroencephalographic abnormality with the development of postencephalitic epilepsy. They did not discuss in detail their findings in cases with other postencephalitic complications except to remark that for the most part the tracings were normal, although some showed slightly slow activity. Since the question is often asked as to how frequently residual electroencephalographic abnormalities occur in those patients who subsequently develop postencephalitic behavior disorders or postencephalitic Parkinsonism, we have reviewed our findings in a series of such patients.

Material and Method.—Two groups of patients [2] were studied. The first group included 15 cases with severe postencephalitic behavior disorder studied by electroencephalography from 6 months to 17 years after the occurrence of the acute attack of encephalitis. The second group consisted of 36 cases with postencephalitic Parkinsonism. In the latter group the acute attack of encephalitis had usually occurred many years prior to admission although the clinical history was often indefinite on this point.

Electroencephalograms were obtained with a Grass six-channel apparatus by monopolar and bipolar techniques and were classified according to the Gibbs' Scale(5) with correction made for age.[3]

DATA

I. *Cases with Postencephalitic Behavior Disorder.*—Table 1 shows the electroencephalographic findings in 15 cases of postencephalitic behavior disorder, in addition to the corresponding age, sex, neurological abnormalities, and the presence or absence of a history of convulsive seizures. It is apparent from this table that, in all 15 cases, the attack of acute encephalitis occurred prior to the age of 14 years although the age at the time of the brain wave recording was as high as 21 years. Of the 15 cases, 13 (87%) showed some electroencephalographic abnormalities, mostly of a mild degree and primarily of the slow wave type, although some severely abnormal tracings and occasional fast activity were also seen. No focal abnormalities were observed. There were only 3 cases with a history of convulsive seizures as an added complication of the attack of acute encephalitis. Two of these had markedly abnormal tracings. When cases with a history of convulsive seizures were excluded, the incidence of electroencephalographic abnormality was 83%.

II. *Cases with Postencephalitic Parkinsonism.*—Of the 36 cases with postencephalitic Parkinsonism, 24 were males and 12 females. Although some personality disorder was present in all cases, only 16 were considered psychotic at the time of hospitalization. Age at the time of the electroencephalographic recording ranged from 20 to 51 years.

[1] From the Department of Psychiatry, Harvard Medical School, and the Boston Psychopathic, Hospital, Dr. Harry C. Solomon, Director.

[2] In all cases the EEGs were recorded from 1939-1947. All but 2 patients were studied at the Boston Psychopathic Hospital. The 2 exceptions were cases with postencephalitic behavior disorder admitted to the Metropolitan State Hospital and studied by Dr. Thaddeus Krush, who kindly loaned us the EEGs and clinical data.

[3] Interpretations of EEGs were made by Dr. Milton Greenblatt and Dr. Knox Finley.

Of the 36 cases, 11 (31%) [4] showed some electroencephalographic abnormality. Five were classified S1; 4, S1 and F1; and 2, F1. No focal abnormalities were observed. It is apparent that the electroencephalographic abnormalities were all of a mild degree with slow activity predominating, although considerable fast activity was also observed.

It is worth noting that the incidence of electroencephalographic abnormality was essentially the same for cases with and without psychosis (31% and 30% respectively). There were 8 cases with a history of oculogyric crises and of these only 3 had abnormal EEGs.

TABLE I

ELECTROENCEPHALOGRAPHIC FINDINGS IN CASES WITH POSTENCEPHALITIC BEHAVIOR DISORDER

Case No.	Sex	Age in years at time of EEG recording	Age in years at onset of encephalitis	Interval between attack of encephalitis and EEG recording	History of convulsions	Neurological findings	EEG *
1	F	6	2	4 years	No	Left Babinski	S_1 and F_1
2	M	6	5	15 months	No	Negative	Normal
3	M	7	3	4 years	No	Negative	S_1
4	M	7	6	6 months	No	Negative	S_1
5	F	9	8	1 year	No	Negative	S_2 with occasional spikes
6	M	10	2	8 years	No	Mask-like facies Left internal strabismus	S_2 and F_1
7	M	11	4	7 years	No	Negative	S_1
8	F	11	2	9 years	No	Negative	S_1
9	M	15	12	3 years	No	Hyperactive tendon reflexes on one side	Normal
10	F	17	12	5 years	No	Sluggish pupils	S_1
11	M	17	9 mos.	16 years	Yes	Pupils unequal Rt. knee jerk > left	S_2 with occasional spikes
12	F	18	1	17 years	No	Pupils unequal	F_1
13	M	18	13	5 years	Yes	Slight right facial weakness	S_1
14	F	20	3	17 years	Yes	Pupils unequal	S_2
15	F	21	6	15 years	No	Negative	S_1 and F_2

* S_1=slightly slow; S_2=very slow.
F_1=slightly fast; F_2=very fast.

DISCUSSION

By the time patients are hospitalized for postencephalitic behavior disorder, it would appear that the infectious process had either subsided or had reached a stage of relative inactivity. One might, therefore, expect to find few abnormal EEGs in these cases. Greenblatt, Levin, and Atwell (6) observed a relatively low incidence of electroencephalographic abnormality in a heterogeneous group of cases with nonprogressive or slowly progressive brain disease (excluding those with convulsive manifestations). However, in patients with postencephalitic behavior disorder, even though cases with a history of convulsive manifestations are excluded, one still finds a high incidence of electroencephalographic abnormality (83%).

It is worth noting that our findings are similar to those observed for other groups of behavior disorders. In 71 behavior problem children, Jasper, Solomon, and Bradley (7) found an incidence of 71% abnormal EEGs. Strauss, Rahm, and Barrera (8) reported 68% abnormal EEGs in 44 cases with behavior disorder. Lindsley and Cutts (9) compared the brain waves of 36 normal children, 50 behavior problem children, and 22 "constitutionally inferior" children. The behavior problem children differed from the normal children in showing a higher inci-

[4] The difference between percentages of electroencephalographic abnormality in postencephalitic behavior disorder and postencephalitic Parkinsonism is statistically significant; the difference (56%) is 3.7 times its standard deviation.

dence of slow waves and greater vulnerability to hyperventilation. The "constitutionally inferior" group resembled the behavior disorder group except for the occurrence of a lower incidence of 2-5 per second waves. Brown and Solomon(10) found 85% abnormal EEGs in a group of 20 delinquent boys, and Brill, Seiderman, Montague, and Balser(11) found 74% abnormal EEGs in 23 children with behavior disorder. Secunda and Finley(12) reported 51% abnormal EEGs in a series of 143 behavior disorder children but only 15% abnormality in 76 control children of the same age range. There was a gradual decline in abnormality with age, the cases with behavior disorder dropping from 74% abnormality in the 4-to-9 year range to 34% abnormality in the 16-to-18 year range. Gottlieb, Knott, and Ashby(13) reported 49% abnormal EEGs in a series of 67 children with behavior disorder but found a considerably higher incidence of abnormality in cases with a family history of psychosis, maladjusted personality, chronic alcoholism, or epilepsy and in cases with a history of cerebral trauma or severe illness than in cases with none of these features. Michaels and Secunda(14) observed that electroencephalographic abnormality did not correlate with the vague and complex syndrome of behavior disorder alone but with certain specific aspects of the syndrome, such as a history of enuresis. Michaels(15) calls attention to the dangers of drawing conclusions from the relationship of a relatively simple graphic record, the EEG, and a vague, complex, qualitative entity, behavior disorder syndrome. It is therefore apparent that a further analysis of the features which correlate with electroencephalographic abnormality is important if one wishes to understand better the significance of the electroencephalographic findings. From the reports available at present it appears that patients with behavior disorder are most likely to have abnormal EEGs if there are complicating features such as evidence of organic brain disease, constitutional defect, enuresis, or epilepsy. Our findings in the postencephalitic behavior disorders are consistent with the observations of others that in behavior disorders associated with organic brain disease there is a relatively high incidence of electroencephalographic abnormality.

It is worth noting that, in all our cases with postencephalitic behavior disorder, the attack of acute encephalitis occurred prior to the age of 14 years, whereas in the great majority of cases with postencephalitic Parkinsonism the acute attack of encephalitis occurred after childhood and was not followed by the complications of either epilepsy or behavior disorder, although some cases later developed a psychotic reaction. It appears that when encephalitis develops prior to the attainment of full psychobiologic maturation the consequences of the illness are apt to be more serious with regard not only to the possible development of convulsive manifestations but also to the occurrence of uninhibited behavior. Furthermore, it is in these two complications that one finds the highest incidence of residual electroencephalographic abnormality.

In our cases with postencephalitic behavior disorder a variety of abnormal electroencephalographic patterns was observed. However, most of the abnormalities were of a mild degree with slow wave forms predominating. The electroencephalographic findings were in general nonspecific and, in view of the absence of prominent paroxysmal features, the tracings did not resemble those most frequently seen in the epileptic disorders.

SUMMARY

In a review of the electroencephalographic findings in patients with postencephalitic behavior disorder and postencephalitic Parkinsonism, the following observations were made:

1. Of 15 cases with postencephalitic behavior disorder, 13 (87%) showed some electroencephalographic abnormalities, most of which were of a mild degree and of the slow wave type. There were 3 cases with a history of convulsive seizures as an added complication of the encephalitis. In 2 of these the tracings were markedly abnormal. These findings are consistent with the observations of others that in the behavior disorders associated with organic brain disease there is a relatively high incidence of electroencephalographic abnormality.

2. In a series of 36 cases with postencephalitic Parkinsonism, 11 (31%) showed some electroencephalographic abnormalities, which were all of mild degree and primarily of the slow wave type, although a moderate amount of fast activity was also observed.

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A SUMMARY OF THIRTY-SIX CASES OF LOBOTOMY

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The newness of the operation is excuse enough for any summary of results of lobotomy. The 36 patients here reported are of peculiar interest because of the individualized postoperative hospital care and psychiatric direction which they have had. This care we feel to be of utmost importance and a skill not easily described or taught, but gained by daily observation of the individual's reactions to situations and by so manipulating their environment and activities that good habits are encouraged and poor ones eliminated.

Early cases in this series suffered from our ignorance in this regard. For example, 2 depressed women operated more than 6 years ago were profane and incontinent of urine and feces for 4 years postoperatively. By usual criteria they should have been very favorable cases but instead were still serious nursing problems and socially unwanted. However, even these, during the past 2 years, have been encouraged by more individualized handling to show definite improvement. Meanwhile, few of our more recently operated cases have had more than a week or two of difficulty with these complications.

A problem more difficult of solution than that of education has been that of finding environments outside the hospital where such patients may go when well enough to leave the hospital. Several have had to continue living in the hospital for this reason alone though otherwise able to live a relatively normal existence.

This situation is produced by several factors: During the years of their hospitalization, families have so broken up or died off that there is no home able to take them; since this group is so predominantly female and of a class that has not had to work for a living, they have a poorer chance of establishing themselves independently than those driven by economic necessity; the average age of this group was 49 at time of operation—a bit old to start earning a living; all of those under the average age, except for one psychoneurotic, were chronic schizophrenics.

In spite of these factors, the most useful way of classifying results of these patients is to divide them as to those who are in the hospital and those who are not. Some of those still in are far more livable than some of those who are out, but their numbers are about equal. It is a more practical test by which to judge results than a statement of degree of improvement, for all but 2 cases were distinctly improved in several respects and only 3 developed and kept troublesome traits not present pre-operatively (incontinence, obsceneness, combativeness, silliness). All but 2 appeared more happy, contented, and at ease.

Selection for operation was an individual matter. One was chosen because she had sat naked in a puddle of urine for 30 years. (Now she wears clothes and diapers.) Another was chosen because only a marked paranoid trend marred her otherwise adequate personality. (She is now keeping house.) The first 5 were done before electric shock or insulin was regarded as treatment for depressions and therefore received none. (Of these, the 3 men are out and much improved; the 2 women are in and obscene, noisy, and incontinent.) All but 10 others received electric shock, insulin, or both. All had been ill many years and they averaged 97.16 months since first hospitalized. This particular span of time was felt to be more tangible in most cases than the span from date of onset of present illness to date of operation. All these patients, then, were clearly chronic. Only one patient had a second operation and this proved unhelpful.

All were operated by the Freeman-Watts coronal burr hole approach and by Dr. Jason Mixter. No tissue was removed (except small biopsies) and no opaque or other foreign substances introduced for X-ray purposes. There have been no operative deaths. One woman, 71, died 6 months after operation following an electric shock treatment with curare. (Her muteness had not been relieved.) She is included as "in" hospital. Five cases done by other operators and techniques are not included in this study.

One man is reported and 3 women are known to have had a generalized convulsive seizure postoperative (11%). None, so far as is known, have had more than one seizure. All known to have had a seizure had electric shock therapy or metrazol before operation.

Twenty-one of these patients were schizophrenic; 7 were paranoid, 8 catatonic, 2 hebephrenic, and 3 classified as other types. One patient was called paranoid condition which, of course, could be considered paranoid schizophrenia. Ten were manic-depressive depressed, but all of these were aged 57 or above. One was involutional melancholia. One was manic-depressive, circular type, aged 50. Three were called psychoneurotic; one was a mixed type and 2 were reactive depressions.

Those in and those out of the hospital divide themselves exactly equally, 18 each. Average ages of those in is 48, of those out is 51.4—hardly a significant difference. A difference that does seem significant is that between the average number of months from first hospitalization to operation of those in, 106.3, and of those out, 88, which represents an average duration of illness nearly 3.2 years longer for those who are still in the hospital. Two of these now in were returned after try-outs of 2 and 25 months. One of these we believe ready to go out again. Three of those in have ground privileges.

By classification, 4 depressions are still hospitalized (including one ready to go and one dead) and 9 are out (including the circular one and the case of involutional melancholia). The paranoid condition is in; the 3 psychoneuroses are out. Of the paranoid schizophrenics, 5 are in, 2 are out (but one of those in is ready to go). Of the catatonic schizophrenics, 6 are in, 2 are out. The 2 hebephrenic schizophrenics are both out. Of the schizophrenic, other types, 2 are in, one is out.

Of 6 males, all but one are out. Of 30 women 17 are in (including one dead), and 12 are out.

Figures as to the time hospitalized after operation are as much determined by changes of policy in postoperative care as by the patients' condition. Early it was felt better for re-education and training to take place at home. Lately we have felt it should be a combination of hospitalization plus trials at home or on excursions out of the hospital. These figures are also much distorted by the difficulty in finding suitable homes for improved patients. One did not leave for 23 months after operation, one at 7 months, one at 6 months, 4 at 5 months, 2 at 3 months, 3 at 2 months, one at one month, 3 at 3 weeks, and one at 2 weeks. One was transferred to another hospital at 2 weeks but later went out.

Hallucinations as a feature of the clinical picture have a special importance. They are not necessarily an indication of poor prognosis from lobotomy but are often the apparent cause of failure to make a good adjustment after lobotomy. The operation appears to permit some patients to ignore their hallucinations. Others respond to hallucinations with much more gusto postoperatively.

In summary, the operation has been of benefit to all but 2 of our 36 cases and has permitted a half to live fairly normal lives at home. None can be said to have no trace of the former illness but many can be said to have made an adjustment which pleases both the patients and their families.

THE STATE MENTAL HOSPITAL AS A SPECIALIZED COMMUNITY EXPERIENCE [1]

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I. INTRODUCTION

The major objective in this research has been to find out the effects which the state mental hospital has upon patients in speeding or in hindering recovery. From one point of view, the mental hospital can be regarded as a social institution in which certain persons designated as employees or patients fill certain offices and roles recognized by the public, but who in their interpersonal relations evolve certain cultural forms which are characteristic of this particular type of institution. Thus, the employees and the patients in their interpersonal relations participate in a common collective life and influence one another.

To be sure, the duty personnel have specific positions and functions and react to the patients from the perspective of these positions and in accordance with their functions. Certain routines are also compulsory to patients. Certain types of behavior are forbidden to them. Despite these administrative features of the hospital, the patients within it are not discrete and isolated entities; they mingle, talk, and express certain feelings and ideas which become shared with others and so a common area of traditions, interests, and values is built up.

It is this area manifested in the personality of the patient with which we have been concerned. We regard the patient as a person who because of his disorder cannot always respond appropriately to other persons and situations but who also has certain relatively clear aspects of his personality which permit him to communicate and participate with others in some scheme of shared values. The patient is thus defined as a person in conflict who resorts to activity not in keeping with the norms of our society and who consequently requires some form of control.

II. SOME EMPIRICAL FINDINGS FROM THE STUDY

It is not possible in this limited space to report on all the major findings which have emerged from this study. These will be found in the scientific treatise which has been prepared. Here can only be indicated, in a general way, some of the conclusions relative to the impact of the attendant culture upon the patient group and the character of the group life which emerges among the patients.

Thus, one phase of our research has been the attempt to show the manner in which the attendant cultural organization influences the patient group and in turn to point to those behavior patterns which the patients develop to facilitate their adjustment to the attendant personnel. In our approach to this problem we attempted to establish intimate personal contacts with employees and patients alike. Thus, our contacts and relationships with employees and patients have been characterized by friendliness and intimacy in which we have tried to catch the more subtle essences of the interpersonal relationships within the hospital. This intimate, friendly manner of meeting patients cannot be understood in the hospital as it is now constituted. The differentials of status within the employee group, the inferior status of the patients, and the fact that the employee group functions to keep the patient group in its place—all these factors have created a type of hospital social environment which is antagonistic to the meeting of persons on the level of our common human nature.

The attendant group is the most crucial segment of the employees as far as the patient is concerned. For it is the attendants who have charge of the patients daily and through whom the routine of the hospital has to be

[1] Read at the 104th annual meeting of The American Psychiatric Association, Washington, D. C., May 17-20, 1948.

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carried on. They also act as liaison agents between the patients and the doctor and other professionals within the hospital. Thus, in this research we have attempted to reveal the character of the attendant culture and to show how this culture affects the patients both individually and collectively. Consequently, we have raised the question of the nature of the traditions within this group and the ways in which they affect the patients. The attendant is cognizant of the role and power which he exercises; he locks the doors and carries the keys and in a very definite sense it is the key which is the symbol of the attendant's power.

The traditions which we found to be crucial in the attendant group center around the following: (1) patient and doctor contact; (2) controlling of patient behavior; (3) definition of circumstances requiring punishment of patient; and (4) carrying on ward routine. For example, at the attendant level where the real control of the patients is lodged there have emerged all sorts of physical practices, work devices, and rigid ethical schemes which operate to discourage any recovery tendencies that patients may manifest. The chief aim of this attendant culture is to bring about the control of patients—a control which must be maintained irrespective of patient welfare. This aim is sharply illuminated with respect to expressed desires or requests of patients. All such desires and requests, no matter how reasonable, how calmly expressed, or how politely stated, are regarded as evidence of mental disorder. Normality is never recognized by the attendant in a milieu where abnormality is the normal expectancy. Even though most of these behavorial manifestations are reported to the doctors, they, in most cases, merely support the judgments of the attendants. In this way, the doctors themselves help to perpetuate the notion that the essential feature of dealing with mental patients is in their control.

The gossip and back-biting, among the attendants as well as among the other employees, are products of conflicts that arise between different groups of employees. Each person occupying a particular role in the employee hierarchy acts to preserve his own status position and uses any device available to obtain this end. Thus, there is created a social life within the hospital employee group which is characterized by intensely personalized attitudes, a high degree of suspicion, a marked sensitivity with respect to role and status. This psychological climate of the employee group of the hospital perpetuates itself regardless of the effect on the welfare of the patients. Consequently, the perpetuation of this employee culture becomes an end in itself and thus serves to weaken any therapeutic programs of the hospital.

Thus, with respect to the functioning of the general employee culture we would make the following points: (1) it aims to preserve its inner form and structure irrespective of patient welfare, and (2) it aims to bring about the complete subjection and control of patients irrespective of recovery tendencies exhibited by patients.

In the mental hospital this situation is highly significant, for the majority of persons placed in it have psychological disturbances which flow from the character of their previous interpersonal relations outside the hospital. Thus, the cultural atmosphere of the employee group in the hospital becomes highly significant in relation to mental patients precisely because their disturbances flow out of interpersonal relations. Consequently, the character of the social life among the employees as it now exists tends to act adversely upon certain types of patients. For mental patients are particularly sensitive persons and the pressure of marked conflicts and intensified suspicions in their cultural milieus only serves to aggravate their own existing personality conflicts.

Let us now obtain a quick résumé of the kind of social organization which emerges among the patients. Preliminary and brief observations soon provide evidence, as any competent psychiatrist can testify, that, contrary to popular belief, mental patients are capable of developing and do develop some kind of common collective life within the hospital. This social organization which patients developed embodied certain cultural forms which proved useful to patients in protecting themselves from the most vicious aspects of the attendant culture.

This cultural life of the patients was manifested in their attitudes to the hospital, their mental disorders, and their relationships with doctors and attendants. In all these facets

of institutional life communication was maintained among patients even though the frequency and the intensity of the communication varied with the kinds and severity of mental illnesses and with the different types of wards. Within the hospital, patients competed for certain common values; they frequently discussed among themselves their chances for achieving these values. These values in order of their desirability included (1) going home; (2) a certain type of ward; (3) the attentions of the doctors; (4) certain jobs within the hospital system; and (5) the goodwill of the attendants.

With the exception of the first value, the competition for the others is brought into bold relief among those long-time and chronic patients (44.9% of the patients in the hospital for 10 years or longer) who must work out some satisfactory adjustment to the hospital milieu. Those patients who concentrate upon going home naturally appraise the other values in a more cursory and dilettante fashion. Their major concern is getting out of the hospital; their attitudes to their mental illnesses, the doctors, and the attendants are all subsidiary to this prime consideration. Many approach this matter of getting out of the hospital in an ingenious fashion. They recognize the necessity of convincing the doctors that they are well enough to leave. The relative significance of these values emerge through the observation and examination of the group life among patients on the various types of wards.

This culture of the patient group which has only been briefly considered functions, mainly, to help the patient defend himself against the attendant culture. In doing this it achieves 2 subsidiary aims: (1) to ease the patients' adjustment to the hospital and (2) to acquaint them with those techniques which will facilitate discharge.

III. Role of the Superintendent

The superintendent of the mental hospital is always confronted with a definite dilemma. On the one hand, he has vested in him the authority and responsibility for the hospital. On the other hand, he has to avoid public disfavor and to impress the public with the better features of the institution. But the superintendent must also adjust to the institution in the same way that other employees do. When he assumes the superintendency he is confronted with a series of traditions and ways of activity. He must enlist the cooperation of his employees if he is to have a smoothly functioning organization. As a result, he is constantly faced with a dilemma: should he concede to the traditions that are an inherent part of the institution, or should he challenge the traditions and try to orient the hospital toward therapy? Should he attempt to make changes he is always circumscribed by the amount of funds, by the available personnel for re-employment, and by the existing hospital culture. Specifically, the superintendent of a mental hospital may be dissatisfied with the type of attendants in his charge, but should he attempt to change this type of personnel he may find that new personnel are not easily obtained. As a result, he is compelled to concede to some of the deficiencies of this type of employee. Should he attempt a drastic revision of his organization he would buck against the entrenched habits and attitudes of many of his employees whose antagonism he would incur and who would tend to be less cooperative.

In short, the superintendent, like other employees, despite his authoritive position must adjust within the latitude of his official position to the pre-established collective habits of the institution. In this way the institution can continue to function along its traditional pathways with a minimum of friction. As a general rule, changes which are made must take place gradually and with the concerted support both of public opinion and of men with political authority.

At Columbus State Hospital this is precisely the situation which the superintendent faced. On the one hand, he has seen many things which had to be done to realize better the therapeutic aim; on the other hand, he has recognized that he must proceed slowly with his progressive ideas because of the character of the collective life of the hospital and of his ever-pressing responsibility to the people of the state. Thus, he has had to function in a situation where he is charged with getting patients well quickly and at the same time has had to come to terms with

a hospital social organization which in its functioning is often inimical to therapy.

IV. Factors Facilitating and Factors Impeding Patient Recovery

The research materials and findings of the hospital study have been instrumental in pointing to some factors which facilitate and some factors which hinder therapy for the patients. We wish to point to the fact that the factors which impede recovery in the hospital milieu appear to be twice as numerous as those which facilitate recovery. This is to be expected by the very nature of the social organization which has evolved in the state hospital.

A. *Factors Facilitating Recovery:*

(a) The hospital creates an opportunity for some patients to gain respite from their conflict situations. It enables them to gain more objective perspective with respect to their situations.

(b) Certain attendants and nurses play a positive rôle with certain patients because through talking and conversation they encourage them to make a more satisfactory internal adjustment.

(c) Many of the jobs to which patients are assigned in the hospital enable them to develop certain work habits which take their minds off their difficulties.

(d) The hospital provides a program of positive medical therapy for those patients who are physically ill or whose mental disorder has an organic basis.

With respect to these factors it should be noted that the first is largely of a negative variety and the final factor represents the only positive contribution of the hospital. The second and third factors, while positive in character, are incidental and unrelated to the limited therapeutic effort.

B. *Factors Impeding Recovery:*

(a) The hospital culture stimulates many patients to develop a negativistic attitude toward the doctors because being highly sensitive they regard the formal clinical attitude of most doctors as evidence that they do not want to help them.

(b) The culture of the employee group tends to operate in such a way that the welfare of the patient body becomes subservient to its function and development. A characteristic of the employee culture is that it tends to discourage the young, thoughtful, and enthusiastic new worker who may have ideas for helping patients.

(c) The hospital fails to provide sufficient organized activity on the various wards to encourage patients to become more outgoing. The general lack of psycho- and hydrotherapies as well as the inadequate occupational and recreational therapies in the hospital impedes the attainment of this therapeutic goal.

(d) The lack of an adequate educational program for the employees which will place mental illness in its correct scientific perspective and provide them with appropriate techniques for handling patients operates against the therapeutic aim.

(e) The hospital culture functions to cause some employees to react to patients in a personal manner, rather than in a scientific or objective manner.

(f) Throughout the hospital there is a general tendency to pay no attention to the wishes of patients with respect to what they want or what they think might be good for them.

(g) The failure to distinguish between patients who violate rules intentionally and those whose violations result from the nature of their particular illnesses tends to produce an apprehensive and anxious attitude among patients.

(h) Little effort is made to prepare patients psychologically for receiving shock treatment.

(i) Few incentives are offered for attendants to do a superior job.

(j) There is a minimum of effort expended to consult with and to educate the family concerning the patient's condition and expectancies at the time of discharge.

On the basis of this analysis we contend that the state mental hospital has developed a kind of dual cultural system which actually prevents it from achieving the expected goal of any hospital, which is therapy. The therapeutic goal will be achieved when ways are found to break up the existing social organization in the hospital and orient in a direction more compatible with therapy. From the results of this study a number of practical recommendations emerged which directed toward this end. Definite changes along specific lines must be made if our state hospitals are ever to become effective therapeutic agents.

GROUP PSYCHOTHERAPY WITH NEUROTICS[1]

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I. INTRODUCTION

The need for fundamental work in group therapy is indicated by the many schools, very different in approach, depth of treatment, and professional training of the therapists (1, 2, 3, 4, 5). These differences are shown in a survey of group therapy done in the Veterans Administration hospitals and clinics. There were 145 groups reported on, 120 of which were conducted by physicians, 20 by psychologists, 4 by social workers, and one by a chaplain. Depth and type of therapy are comparable with individual treatment. In 103 of the groups, the meetings were described as inspirational-repressive, set or free discussion, lectures, and questions and answers. In some cases, all these techniques were used to achieve the general inspirational-repressive effect. Forty-two group leaders conducted deep psychotherapy. Forty-nine groups were composed of psychotics, some after shock therapy with patients in contact with reality and other groups of patients not in contact; 80 of neurotics; 10 were reported as mixed; 3 of chronic alcoholics; and 3 of epileptics. In 8 groups, psychodrama or a modification of it was used.

In our research project we had to decide arbitrarily on a single approach. We do not intend, however, to imply that it is superior to any other, but simply that observations, study, and comparisons of more than one radically different therapeutic approach would have enlarged and complicated the research to an unmanageable degree. We decided arbitrarily that all our therapists would be psychiatrists and that the general methodology would be that of depth psychotherapy following conventional patterns modified by the group situation. That is, in general, the patients' behavior and attitudes which were satisfying would be subject to analysis to the degree necessary to resolve the conflicts and relieve the symptoms. The method would be primarily through discussion rather than acting out. The aim of the research is to explore the dynamics of this type of group therapy and the most effective ways of doing it.

We started with an exploratory attitude and a minimum of theoretical preconceptions and then developed our experimental mores. Our general philosophy—or, to be less grandiose, our frame of reference—is pluralistic and relative. We hope to achieve quantification of our data on the basis of qualitative understanding. The data are always studied in context and from all the relevant standpoints. This paper is an abstract of a preliminary report.

II. ORGANIZATION AND METHOD OF RESEARCH

We are studing intensively 9 groups under the leadership of 7 psychiatrists. Each doctor has an observer who is a psychologist or a social worker, and, occasionally, a senior psychiatrist. All patients are male veterans of World War II, from 19 to 50 years old. There are 2 groups containing both whites and Negroes. Patients have every variety of neurosis and there are 4 ambulatory schizo-

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This research is being carried out in the Veterans Administration under the auspices of the Washington School of Psychiatry. Collaborators in the present study include: Joseph Abrahams, M. D., Clarence E. Bunge, M. D., Jarl E. Dyrud, M. D., John Fearing, M. D., Henry S. Maas, M. A. Robert MacGregor, M. A., Joseph Margolin, M. A., Eugene C. McDanald, M. D., Helen T. Nash, B. A., Harold F. Searles, M. D., Edith Varon, M. S., and Robert W. Webb, M. D.

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phrenics. Diagnostic categories are, in general, so loosely formulated in respect to pathology that no attempt has been made to set up groups in terms of clinical diagnoses. The problem of how to compose groups is being studied.

The groups were composed, at the start, of any patients whom the doctors "thought" suitable on the basis of clinical judgment, and started with 4 to 12 members. The patients sit informally around the table. Two groups meet twice a week and all others meet once a week. The usual length of the meeting is 1½ to 2 hours.

The doctor discussed group therapy individually with each patient he considered suitable for the group, explaining the procedure in general terms. It was made clear that their right to individual treatment would not be affected by their acceptance or refusal of the group. As the physicians' confidence in this treatment has increased, the proportion of acceptances has steadily risen. The determining factor in acceptance seemed to be the doctor's conviction.

The development of research methods by means of which we could discover and study what actually occurred during the course of therapy in our groups, and understand its meaning, was our most difficult task. The literature is singularly free from objective observations and validated conclusions on the actual events occurring during the psychotherapeutic process with individuals or groups. We found that we could not adapt the observational methods developed by social psychologists (6, 7) to a study, the main object of which was understanding therapy. We include here only a brief summary of our methods, which will be published in full later.

To control the work we tried to match patients in individual treatment with those in group therapy, but the validity of such controls could not be established. A number of patients in individual treatment, however, have received the same study as the patients in groups. A further control is afforded by comparing data on patients who do well and those who do poorly in groups. Our methods include data on the content of both individual and group sessions, social worker interviews, and psychological tests.

Each doctor fills out a symptom check list at the beginning and end of treatment. He also prepares a brief clinical evaluation at the start of treatment, including his prediction as to how the patient will react in the groups and how he will respond to treatment. At the end, he evaluates the effects of treatment and how they compare with his predictions.

Patients receive Wechsler-Bellevue and Rorschach tests and a specially devised social worker interview at the beginning or early in their group experience and at the end. The results of psychological tests, interviews, doctors' evaluations, and symptom check lists are correlated with progress in group therapy.

A wire recording is made of each group session and significant excerpts are transcribed. The observer makes a running record of each group meeting. The objectivity of this record is enhanced by discussion immediately after the meeting between observer and therapist and verified, or not, by subsequent observations. This record permits review of group development in terms of (1) significant events for each patient, (2) the interactions in the group, and (3) the interventions and attitudes of the doctor. Each doctor keeps clinical notes of the individual sessions, particularly of material related to the group therapy.

From these observational data, situations are singled out for analysis and classification. Analysis of situations has become the heart of the research method and the "situation" has become the basic unit of this study. A situation is a pattern of events which have meaning for the processes of understanding and treating the patient, and it is defined by this meaning rather than by the events composing it. The same events may appear in several different situation analyses, each concerned with a particular aspect of the situation under study or with a particular patient. A situation may last a few minutes or may stretch over months, as in the example at the close of this paper. Only those situations are selected for analysis whose meaning seems clear and is agreed upon by both doctor and observer, and which cast light on the processes of therapy and recovery.

The situation analysis starts with the setting of the significant event or events, including relevant personal attributes of the partici-

pants, previous experiences in group and individual sessions and those reported as taking place outside of therapy, and relevant attributes of the total setting, such as the developmental stage of the group, its mores, and so on. The event itself is then described in bare essentials, followed by a description of its effects on those directly concerned and the group as a whole. A final discussion considers the implications for therapy and for future observation. Analyses of situations, as well as significant observational data, are classified and cross-referenced in accordance with an inclusive classification scheme. The data on the significant events subjected to study are summarized after each 10 meetings to bring out long-term processes or recurrent patterns which might be missed if attention were confined exclusively to the single meeting. Points of theoretical interest are noted for further observation. An example of a situation analysis is given at the end of this paper.

Training

We have found that the training aspects of the project have become very important as group therapy at deeper levels demands considerable self-awareness, equanimity, and practical knowledge of psychotherapy. The doctors depend on the discussion after the group meetings to broaden their perceptions of the processes of therapy and to increase their objectivity and self-confidence.

Seminars provide an opportunity for group discussion of technical problems and failures. Tentative principles of treatment are formulated from these discussions leading toward further validation or revision. These seminars have become, in a sense, a form of group therapy but no attempt is made to bring up the personal problems of a doctor unless he spontaneously discusses them.

Tentative Formulations

We have made many tentative formulations now being subjected to further validation, of which we have time to discuss only a few, but the following will give some idea of our approach to this aspect of the research.

The understanding of group psychotherapy requires study of many interrelated aspects—attitudes and behavior of the doctor, the composition of the group, its developmental stages, etc. We have been able to make some tentative formulations of therapeutic principles and techniques, and to delineate problems about which we can make hypotheses. There are still other areas in which we envisage the problems but cannot, as yet, make any hypotheses. We hope that one result of our research will be a manual on group therapy.

In any study of therapy the experience and personality of the doctor must of course be considered. In group therapy he is the strongest single influence on the functioning of the group. He sets the aims and mores of the group and determines the types and therapeutic effectiveness of the relationships formed among the members. Doctors have an individual way of conducting their groups, although their differences in technique diminish as experiences are shared in the seminars. Moreover, understanding of what goes on in group therapy cannot be accomplished without knowledge of the therapist's personal attributes, vulnerabilities, and style of therapy as shown by his attitudes and the way he handles different situations. Beside the observations we are also attempting to study the problem of the doctor's personality in relation to therapy through Rorschach tests.

It is important, but not easy, for the therapist to be emotionally independent of the group, as he should be in any treatment situation, so that his perception of occurrences is not distorted and his actions are not guided by his anxiety. Otherwise there is a confusing discrepancy between what he says should be done and what he actually does; for example, he may try to prevent members from generalizing but do it himself when going deeply into certain material makes him uncomfortable. Blind spots and distortions caused by anxiety lead to unconscious favoritism or rejection, and a predilection for, or avoidance of, certain topics and attitudes, or failure to intervene when it is indicated. We may observe the doctor doing the same thing repeatedly in different situations without regard to its relevance or effectiveness, or utilizing only one or two of a great number of possible techniques in a recurrent situation. The doctor's uncertainty may cause him to confuse the group by being unpredic-

table in his attitudes and methods. These problems of the doctor are, of course, important in individual therapy, but in group therapy may be exaggerated because they affect the group as a whole, as well as individual members.

Every therapist intervention affects not only the patient immediately involved, but the other patients as well and their interactions on each other. Our doctors differ widely in their relative attention to the group as a whole and to individual members. Some call attention to what is going on in the group more than others and help members to awareness of the attitudes they are displaying. Viewing group discussion from the standpoint of relevance to the patients' psychodynamics may temporarily increase anxiety, but usually in a potentially helpful way. Examining the behavior of a member, or a group process, may impede therapy in the early stages of treatment if members are not secure enough to express their real feelings. It is extremely valuable later on when the patients are capable of genuine self-examination, leading to a deep insight into their neurotic patterns of relationships as displayed in the groups.

Concentrating on one patient impedes progress if it arouses feelings of rivalry, unless these are analyzed. It is helpful if the value of the discussion is apparent to all members of the group. This occurs when the issues discussed apply directly to other patients, when the doctor uses it to demonstrate a method which each patient can use with benefit, or when it indicates his competence and his interest in the problems of all the patients, of which his present interest is an example.

Fostering feelings of good fellowship by avoiding conflict in the group, or encouraging social meetings outside, is generally impeding to therapy, as it makes it difficult for members to express their deeper feelings and sets a nontherapeutic pattern which the patients are loath to give up. It usually occurs when the doctor is inexperienced or anxious about deep therapy.

The doctors have found useful certain methods of handling difficult recurrent problems. Sterile periods of preoccupation with superficialities are overcome by singling out from the content a significant detail and concentrating attention on it, or by examining what has been going on in the group and the attitudes of the members to find the reason for the block. Frequently it is due to disagreement or irritation with the doctor which patients are afraid to express. Continuing disruptive attempts of a member to convince others of the rightness of his viewpoint have been met by encouraging analysis as to why he must convince others. Since patients often take lack of agreement to mean they have not made the point clear, it sometimes must be stressed that the point is understood, but disagreed with.

Painful or shocking material or activity is usually best handled by being comfortably accepting. This conveys confidence that the group can take it and it diminishes the individual patient's anxiety and guilt. The group will usually intervene if the material is too much for them. Mutual hostility has been utilized therapeutically by encouraging patients to analyze it, although sometimes it is necessary to intervene directly, permitting the anger to be diverted to oneself. Members' feeling of uniqueness is often dealt with by singling out some aspect of this uniqueness that may produce responses from other members, or pointing out its usualness, but this helps only when the feeling of uniqueness is itself part of the problem under discussion. It is usually more helpful to examine the meaning of this feeling. Patients often attempt to cultivate the illusion of a secret understanding with the doctor by, for example, trying to catch his eye. If they succeed in getting responses from the doctor which they can interpret as indicating a special bond, it can be very disrupting to the group. Since this type of by-play is characteristically nonverbal, the doctor must especially control his own nonverbal activity.

It is important for the doctor in planning his maneuvers to take into account the stage of therapeutic progress of the group. Different types of events occur and have different significance, and therapeutic interventions have different effects, depending on the stage of the group's development. We have observed in new groups an orientation and testing period in which patients try to define the group situation with respect to its aims

("Why am I here?"), its mode of function ("What do we do here to get better?"), and its structure ("Where do I stand with the doctor and the other members?"). The members are circumspect and tend to be overpolite. They try to sound the doctor out, ask questions as to what is expected of them, or cautiously display certain attitudes and watch for his reactions. They are more concerned with the doctor's attitudes than those of the other members of the group. The relations of the patients to each other are primarily determined by their habitual rôles, that is, the man accustomed to leading assumes a leadership rôle, the submissive person is deferential, etc. There is a low tolerance for tension, with escape by clowning, for example, or retreating into superficialities. Neurotic defenses are much in evidence—patients explore one another and project their feelings on others. The doctor's main task in this stage is to clarify the aims and methods of group therapy for the members. This may be done by demonstrations, direct statements, and, most important, by tacitly favoring certain attitudes and discouraging others. Demonstrations of skill by the doctor are very useful in this stage; for example, aiding a member to insight, or showing his ability to see and accept a member's real self behind his defenses.

In a later stage, the patients learn the methods of group therapy by trying them out. They begin to discuss sensitive points, much of the circumspection disappears, and tension is more closely related to group interactions. Patterns of relationship fluctuate sharply, with intense but brief and brittle linkages, and sharp reversals of feeling. Misunderstandings are frequent. Some of the more insecure members may find the tension too great and drop out. The main task of the doctor in this stage is to keep tensions from rising beyond the patients' tolerance by frequently examining the group processes and attitudes of members and accepting them, and reminding the group of its therapeutic purposes.

In the ultimate or third therapeutic stage, the group is integrated and is accepted by the members as a therapeutic agent. The patients have confidence that their real selves will be understood and accepted by the group, and are convinced that they can get help from it as well as from the doctor. This stage is characterized by regularity of attendance and continuation in the group until treatment is completed. Attention is directed more to in-group than extra-group experiences. Ideas of other members become increasingly important. Behavior is determined less by the members' previous values than by the values of the group itself; for example, the highest prestige and support go to members who are trying to understand their problems or to help others.

Tolerance for tension is high, without undue haste to resolve or escape from it. There is increased willingness to let one man engage the attention of the group or the doctor as long as it is needed. Feelings and attitudes are expressed more directly, without as much neurotic defense and with more awareness of it. Sequences of therapeutic interaction extending over many meetings appear. In this stage the doctor is chiefly concerned with promoting therapeutic interactions among the members and furthering their self-analyses through aiding them to clarify their attitudes and the meaning of their behavior.

Our project is also studying, as important for therapy, the ways in which the patients relate to each other—that is, the structure and sociodynamics of the group; the nature of the topics discussed and their development as clues to the nature of recovery; and the effect of observers. Another large area of study is the modes of procedures (mores) which develop and which the group comes to favor, tolerate, or disapprove. We are interested in discovering which are the most helpful to therapeutic progress and how to develop them. They are at first expressed by the doctor implicitly or explicitly but, in doing so, he must keep the immediate needs and tolerances of the group constantly in mind. Failure to do this slows therapeutic development and causes patients to drop out.

Analysis of a Situation

The following condensed analysis of a long-term situation is included because it illustrates how this method of study gives us the data for an understanding of the kinds of problems discussed above. The analysis of this particular situation illustrates how

group psychotherapy helped a rigid intellectual to break through his neurotic defenses and, at the same time, advanced the therapy of 2 other patients.[4]

Background.—Trover, whose presenting complaint was backache, consistently intellectualized his real problems. The doctor called this to the patient's attention, whenever indicated, without apparent result. Carter was an ambulatory schizophrenic, whose intense hostilities had been masked by an excessively meek and deferential manner. Wallenstein suffered from a severe neurosis chiefly related to an emotionally dependent, ambivalent attitude toward his excessively demanding, overemotional father. He was chronically and overtly hostile to his contemporaries, but could never feel anger toward the doctor. Carter had complained, in an individual session, of how Trover's intellectualizing irritated him, and the doctor suggested that he tell Trover about it in the group, which he did, evincing intense anxiety, at the 38th meeting: ". . . . You bother me more than anybody else here, you know. You seem so damned intellectual. For instance, this situation here—you start to discuss your skin and everyone tries to question you and you're like a man in armor, ... because what they're trying to say is that there's some defect in Trover and Trover is sure there is no defect, you know?"

Wallenstein, after some other interchanges, followed up with: "In many respects I probably agree with what you said in regard to Trover. It seems that when we get to the intellectual stage in regard to Trover, it gives me a feeling of being under."

Later Glaren added: "You know, Trover affects me more or less the same way he does Carter. He seems to be an observer, an understudy for the doctor. He's too logical for anything to be the matter with him."

Trover showed his emotional response to this by unusually halting and vague speech, and frequent nose blowing: "To esteem me as something intellectual sorta flatters me because that's something I've been trying to do all my life. And, on the other hand, it makes me think of how futile and how absolutely valueless that intellectuality is because I think a good part of my troubles here are just from that one thing. It makes me feel that, Jesus Christ, the things that ought to help are hindering, makes me feel the futility of the whole business more acutely than otherwise."

At the next meeting, Trover for the first time came in with an obviously deep emotional problem—his fear of homosexuality. He was reassured and rewarded by all the other patients expressing similar fears. Wallenstein, continuing with an issue brought up in the previous meeting, attacked him violently for not accepting his Jewishness, leading to a feud which went on intermittently for the next nine sessions.

Event.—In the 48th meeting, Trover had come in with another deeply emotional problem about his girl, but expressed it in very intellectual terms. The group tried to discuss it with him helpfully but was unsuccessful. Wallenstein made an overture of friendship by saying that, after a scrap with people, he likes them better (referring to the feud between him and Trover). Trover would not accept this: "I don't want your affection—your being here (in the group) is evidence of your not being right."

Carter brought out that Trover accepted any negative feelings the group had for him, but would not accept the positive ones, by saying: "I had a fantasy—I said to you, 'Trover, I love you very much' and you replied, 'Do you know how Webster's dictionary defines love?'"

Carter thus illustrated succinctly how Trover used his intellectuality to separate himself from people.

Effects.—In the meeting after this, Trover was much upset. Referring to what the group had said about his inability to accept their positive feelings, he told them how he had made up a list of former girl friends, and saw that all those who had expressed warm feelings for him "were suspect." He then broke into sobs—the first time he openly displayed any emotion. In an individual session immediately following, he cried again and said that he had discovered that he believed that no one could like him because "there is no sincerity at the core." He had been living behind a façade and the liking people showed for him was for the façade, not for himself. At the next group meeting, Trover remarked that this was the second time in 10 years that he had cried. He would have expected to feel humiliated, but actually he felt relieved. Thereafter he experienced intense emotions in the group and expressed them freely. He stopped much of his intellectualizing. The marked improvement also carried over into his relationships outside the group, especially with his parents and his girl.

Carter said that he expected the group to "beat hell out of me" following his attacks on Trover. When the group supported him, instead, he became able, gradually, to deal with his problems and the group on a more direct basis, and to stop relating bizarre dreams and fantasies, until at the 80th meeting he was able to say that he had spent his life "working" people, and had tried to do the same in the group.

Wallenstein at one point felt that the doctor was siding with Trover in their feud. This made him feel intensely humiliated and then angry. He could not express this anger in individual sessions but was able to hint at it in the group. In the 41st meeting he said, in tears, "It was your questioning me about my loyalty to the Jews. My reaction was, 'God damn it, you're not taking that away from me!' In my condemnation of Trover it seems that I've really put the condemnation on the doctor." This reaction was discussed acceptingly in the group and individual sessions, and was followed by his becoming more accepting of, and more acceptable to, the group. A few weeks later, he made an open declaration of independence to his father which, to his utter amazement, was quietly accepted and led to a greatly improved relationship.

Discussion.—In summary, Trover had met people by presenting a self-sufficient front. It was evident

[4] All names of patients are fictitious.

in the group that he could not indicate there was anything really wrong with him. Interchanges were always on the basis of someone else's problem. The group finally attacked him for this, then for his rejection of the group except when they were hostile to him. They were saying, in effect, "We are mad at you because you won't let us like and help you."

The patient had an overpowering need to win the approval of his superiors so that he could not break through his neurotic patterns in individual sessions. This need was so strong that it made his defenses against the doctor compulsive. Furthermore, the doctor did not succeed in conveying his real disapproval of the patient's intellectualizing because he occasionally lapsed into it himself by arguing with him. Finally, the doctor had failed to see a crucial part of the problem until another patient pointed it out in the group—that the patient could not accept friendly feelings toward him as genuine, but only hostile ones.

The group was, on the other hand, able to accomplish a change in the patient's attitude through being hostile to him—the only attitude which he could accept as genuine. They also showed that they saw through this front of his, disliked him for it, but were ready, to some extent, to like and help him. This enabled him to give up his façade of intellectual superiority and opened the way for further readjustment in attitudes.

The group also facilitated the progress of Carter and Wallenstein by providing a situation in which it was easier to express and analyze their hostility than in individual sessions. Carter's attack was the first time that he could remember consciously having openly expressed hostility to anyone whose opinion he valued, in contrast to his murderous, sadistic fantasies. Its acceptance by the doctor and group helped him gradually to break through his schizophrenic isolation and to express his real attitudes. Wallenstein was able to experience in the group his hostility toward the doctor as a father-surrogate and find it accepted, leading to a much improved relationship with his real father.

Although the patients profited so obviously from their group experiences, it was also related to their good therapeutic relationship with the doctor in individual sessions. The attitudes experienced in the group had all been discussed in individual sessions so that the patients were not totally unprepared for their emotional reactions in the group, and were able to analyze them more readily. In the group, the doctor, in general, intervened only to encourage the patients to express their attitudes and examine them. He explicitly gave Carter permission to express his hostile feelings before the latter did so, and gave encouragement as he was doing it. He helped Wallenstein to see the similarity between his feelings toward his father and toward the doctor. He did not protect Trover from the original attack but, later, when the patient cried, tried to help him analyze his feelings; and, when the patient could go no further in the group, helped him to do so in an individual session after the meeting. He intervened in the bitter feud between Wallenstein and Trover only to make sure that the protagonists examined their own attitudes. The physician set the stage, but allowed the group to carry out the drama with a minimum of interference.

Through the study of many situations with as much objectivity as we can achieve, we hope to develop more understanding of the way this type of insight group therapy functions and to develop principles of procedures.

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PROBLEMS IN ATTITUDE THERAPY IN A MENTAL HOSPITAL [1]

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One of the most perplexing problems that confront a thoughtful psychiatrist is to understand what psychodynamic changes take place when a psychotic patient recovers "spontaneously." With a purely descriptive psychiatry one cannot reach any psychological understanding of such events. The discoveries of Freud and the additions made by others to an understanding of dynamic emotional and mental forces enable us to gain some understanding of these cases with the light of psychological determinism.

What formerly had been totally ascribed to "inevitable" biological cycles, or other predominately nonpsychological phenomena, have become meaningful on a psychological level. This is not to deny that biological factors may be of importance in such dramatic resolution of the psychoses. What follows is based on the fact that there is also a psychology which can be understood and influenced, and that apparent "spontaneous" remissions are not without psychological determinants. With the advent of an understanding of psychodynamics, therapeutic nihilism has begun to give way to the rational understanding of irrational unconscious motives which can be dealt with in a remedial way. In short, there is a growing appreciation of the fact that even the most bizarre schizophrenic patient is influenced for better or for worse by his environment and that the most important part of that environment is the people in it.

It is a truism that our hospitalized patients have suffered from the adverse affect of the attitudes and emotional currents directed toward them by important persons in their lives both past and present. This in turn has caused patients themselves to adopt unrealistic counterattitudes and expectations. The psychiatrist can justifiably view and understand a patient's symptoms as reactions to the feelings, behavior, and attitudes of important figures in his life. The therapeutic task of the hospital personnel, then, is to show the patient by its attitude and behavior that his own irrational attitudes and behavior are no longer necessary. This becomes a corrective emotional experience. With this knowledge the psychiatrist working in an institution must do his best to create an environment which is therapeutic. One method and its problems will be discussed.

Various ways of meeting the psychological needs of patients intramurally have been described by Simmel(26), Fromm-Reichmann (6, 8), Bullard(2), W. C. Menninger(16, 17, 18, 20, 21), Sullivan(27), and others(3, 12, 14). Simmel, who was working almost exclusively with patients undergoing psychoanalytic treatment in a sanitarium, stressed the importance of carrying out the therapy under conditions of gradually increased frustration. This was done in order to assist the patient in overcoming the dominant "pleasure principle" through the analysis of his reactions to the frustrations. Fromm-Reichmann and Bullard have concerned themselves with attitude therapy by means of frequent conferences with personnel in making the latter aware of the needs of each patient. In numerous places attempts have been made to create a helpful atmosphere of an entire hospital(1). This, however, helpful as it is, is not flexible enough to be suited to the highly individual needs of each patient.

A systematic attempt to develop a definite plan of attitude therapy was begun at The Menninger Sanitarium 18 years ago. A set of attitudes was developed over the years covering a wide variety of psychodynamic constellations. These attitudes were designed to meet the total needs of the patient both conscious and unconscious. The term "needs" is not used in the sense of discerning only what the patient wishes, but rather what conditions are necessary in order to restore emotional balance. These attitudes have been defined and explained in a guide booklet that is available to all the professional personnel working in the hospital. When each patient's case is discussed at staff conference, a specific attitude to be maintained by all personnel toward the patient is prescribed.

[1] Read at the 104th annual meeting of The American Psychiatric Association, Washington, D. C., May 17-20, 1948.

It is written on the orders for the patient and is communicated to all professional personnel, which includes nurses, psychiatric aides, recreational and occupational therapists, physical therapists, dietician, and any others who will have important contacts with him.

Consequently, when an attitude of "firm kindness" is ordered for a depressed patient, all the personnel know immediately that assuming such an attitude is for the purpose of helping the patient expiate his irrational guilt feelings. This order indicates they are to insist that he carry out all tasks no matter how much he may complain, in order to enable him to externalize his aggression instead of heaping it all on himself. They know they are not to give in to his pleadings to be left alone to suffer, nor are they to slap him on the back and say "cheer up old boy, life really isn't so bad." The personnel have all been instructed as to what the various attitudes mean and why they are used. It is not within the scope of this paper to describe all these attitudes.

In outlining some of the problems of "attitude therapy" it may be helpful to discuss it from several points of view; first the patient's. If the unconscious as well as the conscious needs are correctly surmised and properly met there can be little doubt that the patient derives benefit. The unconscious needs are usually the more difficult to discern. An unconscious need is, for example, the need to express strong resentment that has been repressed in a patient. With this patient the personnel might take a very permissive attitude and even encourage the expression of *justified* anger. On the other hand a different patient may be terribly frightened by the overt expression of his own hostile impulses, and he may need to reinstitute his defenses against them. In this case one might do better to be a strong controlling figure for him. Still a third patient may feel so utterly worthless that he spends most of his time creating daydreams or delusions in which he is an eminently successful person. With this patient one might take a very encouraging attitude in order to get him into some activity where he has natural ability and can thereby receive justified praise. The personnel might make a special effort to give him narcissistic gratification for things he has accomplished in fact, and to ignore his irrational and unrealistic productions. Thus we see that one patient may have a strong unconscious need to express anger, another to contain himself because of his enormous anxiety over what he feels will be the result of his own aggression. The third patient because of his low self-esteem has an insatiable need to be told how good he is.

Now the question should arise, "Do the conscious and unconscious needs remain constant?" No, they certainly do not. For example, a regressed schizophrenic patient may need what we term "unsolicited love." It may be proper to make absolutely no demands on him in order for him to get the feeling that he is accepted and "loved" for himself no matter what he is, and that he is not "loved" solely for what he does or does not do. However, it must be remembered that these patients suffer from a lack of self-esteem. Such a patient at one moment with a word or gesture may indicate that he is humiliated by all the attention that he perhaps feels makes a child of him. One might do this patient a great service, for example, by asking him to clean his room, implying by the tone of voice that one knows he is capable of more responsibility and grown-up activity. The patient might then receive nourishment for his self-respect and something positive would be gained. It can be seen from this example that if an attitude which eliminated any demands on the patient by the personnel were rigidly adhered to, one would unwittingly deny the patient the opportunity of acting in a more responsible and healthy way. One would also be unwittingly allying himself with the unhealthy part of the patient's emotional life and would stifle the expression of the very thing which must be nurtured in order to restore health.

Since the needs of the patient are not static, some flexibility must be exercised. The patient must feel able to express these varying needs and not feel that he is prevented from doing so by a kind of arbitrariness on the part of the personnel. Consequently it must be emphasized that the attitudes which are prescribed are not a final and absolutely rigid way in which patients are met. Rigidity of that kind could only defeat the whole purpose of this kind of therapy. The attitude is prescribed in order that the patient may be treated by all personnel in a consistent way.

It must be realized that the complexities of the patient's reactions make it necessary that intuitive personnel have some flexibility in carrying out the prescribed attitude. The attitude then must be viewed as a guide and a basis of working with each patient. Otherwise the patient is bound to experience unnecessary frustration. Meeting these fluctuations in the patient's feelings is one of the most difficult problems in applying attitude therapy, just as it is with any other system. If we can, then, identify ourselves with the patient for a moment we will see that the attitudes with which he is confronted must be consistent and at the same time allow him a certain emotional area within which he can move.

In addition to the fluctuations in the needs of a patient which occur from moment to moment, there are changes in the more basic needs which make themselves felt over longer periods of time. It may be necessary for the personnel to spend weeks or months giving "unsolicited love" to a schizophrenic patient. When the patient feels relatively safe, secure, and trusting, and knows he is accepted as a person by the professional staff, one can begin to expect him to earn friendship and affection from them. Certainly he will not be treated in the world of reality with anything like the concentrated friendliness and attention he has been receiving. Consequently it is necessary to begin to make some demands on him. In a case of this kind the attitude prescribed would be changed gradually from giving "unsolicited love" to that of encouraging the patient to "earn love." Thus it can be seen that, as a patient's "needs" change, the prescription of attitude also must change.

The greatest difficulties in carrying out a systematic program of individualized therapy arise from the professional personnel, including physicians. Many of the inherent problems in dealing with emotionally ill patients fall into sharper and more palpable relief when this system is used. This is because many of the more subtle reactions of personnel to patients which interfere with progress become transparent, *i.e.*, they have trouble in carrying out the attitude. The personnel are in this way able to confront themselves with their untoward reactions. This is usually done with the help of the psychiatrist or department supervisor. The psychiatrist himself is, of course, by no means immune to the same unfavorable reactions that occur in other personnel. Since it is he who prescribes the attitudes it is entirely possible that he may leave orders which in themselves are the result of an unsolved interpersonal conflict between himself and the patient. Because of this it is necessary that every psychiatrist working with this system must have someone that he himself can consult in connection with carrying out effective attitude therapy. Colleagues serve this purpose by the constant critical evaluation of their own work as well as that of others. Some of the problems that the personnel have in carrying out this program will be mentioned.

Some patients become distrustful of the attitude taken toward them and, even though they may in part wish it, will nevertheless do everything in their power to sabotage it. This "testing" mechanism is familiar to everyone, but can frequently lead to considerable doubt on the part of the personnel as to the therapeutic benefit to be derived from the prescribed attitude. If, however, one has the conviction that the particular attitude is one which meets the total needs of the patient best, he simply must recognize that the patient feels it necessary to "test" the people around him and that it does not necessarily mean that the prescription is in error. This is often a difficult situation to manage and sometimes puts considerable strain on the physician and other personnel. We frequently learn, however, from patients who have recovered that they attribute much of it to the consistency with which they were treated throughout these "testing" periods.

Next the question might be asked: "Isn't it a bit artificial to prescribe an attitude? How can a nurse, for example, adopt an attitude which she may not be able to feel?" This does sometimes happen, but not nearly so frequently as one might anticipate. When it does, if at all possible, it is wiser for that person temporarily not to deal with the particular patient, for it is regularly found that this is due to some intra- or interpersonal conflict centering around the patient and the professional worker. If any nurse or occu-

pational therapist has basically a nonhostile feeling for the patient she can implement the natural force of her own personality by carrying out her contacts with the patient in certain ways. This is what the psychotherapist does and it seems reasonable that what is therapeutic for one hour a day is therapeutic for the remainder, too. After all, our ideals in treating patients are born of the wish to help them, so that properly carrying out a *firm* attitude, for example, which may result in some frustration, is quite consistent with being friendly. It is frequently necessary with certain types of very demanding neurotic patients to assume a rather firm attitude which will result in frustration. This is often done in order that the patient be enabled to confront himself with his unreasonable demands. It would certainly be no kindness at all to continue to attempt to supply such patients with all the things they so neurotically demand. One would only be strengthening the illness and not the patient by so doing.

Many personal problems on the part of the staff become apparent in carrying out this type of program, just as they do in any other kind of hospital environment. Reactions of hostility and guilt as well as fear of patients make their appearances. When these unfavorable reactions appear the staff member involved is not able to carry out the prescribed attitude effectively, and for that matter isn't able to deal therapeutically with the patient on any basis. Not infrequently these feelings can be understood by the staff member through the help of the psychiatrist in charge of the case. When the difficulties are overcome, the staff member in question is almost always able to be *particularly* effective in the subsequent course of treatment.

Many people who have thought about the problem of prescribing attitudes have quite justifiably wondered if it doesn't inhibit the natural and spontaneous reactions of the personnel to patients, which might be beneficial. Certainly this question deserves serious consideration; for if the attempt to present a consistent attitude to a patient results in diminished human contact, the interest of the patient in that case would suffer. However, it has been the experience of those working with this system that inhibition is due to some unresolved feeling on the part of the staff member toward the patient, and again does not arise from prohibiting forces within the system itself.

It can be seen from the foregoing that many of the difficulties which at first seem to be referable to the method are, in the final analysis, the result of the complicated interaction of patients on personnel and vice versa. There is nothing new in this situation for it is one psychiatrists have had to work with always.

In addition to the inherent problems in dealing with the mentally ill patient, certain medical traditions which have grown up over the years need to be overcome before this kind of program can be effectively carried out. This makes itself stubbornly felt in regard to the importance of the ancillary professional workers in relation to the doctor. Nurses, aides, recreational therapists, occupational therapists, and the rest have always been people who merely carried out orders, and performed tasks under the direction of the doctor. They give the pills, take the temperature, administer the exercise, rub the back of the sick patient, and in general, consider themselves at best as important cogs in carrying out the therapeutic program. But in a mental hospital especially, their usefulness should go far beyond this. They are truly the ones who are actually treating the patients. The effect of these people is the greatest reality the patient lives with day and night. Therefore the personnel should consider their own personalities as a part of their professional equipment. They should know them and use them intelligently as a therapeutic force. They have a service to perform and should not feel that they are just carrying out orders. Unless they truly can feel that the force of their own personality is an indispensable part of their professional equipment, the plan cannot succeed. To achieve this conviction requires considerable education and individual help from the psychiatrist. Once this is achieved the problems involved become considerably lessened. It might be argued that the very fact a prescription for an attitude is made would tend to perpetuate the situation where professional workers do not make full use of themselves. However, experience has shown that a restriction in the

service our professional co-workers can give to patients need not be the result of this system. It serves rather as an important frame of reference within which the nurse or occupational therapist can work. They know that it really is a part of the patient's treatment and it lends deserved dignity to all their contacts with him. Having an understanding of why this attitude is prescribed enables the professional workers to feel that what they say and do is important and it not infrequently frees them of a natural reluctance to say much for fear of the ill effect it might have.

In summary then, it is felt that a systematic attitude therapy is a most important and useful approach to the hospitalized patient. Since the meaning of a patient's symptoms can be understood as an outgrowth of, and a reaction to, the emotional currents and attitudes of important figures in his life, both past and present, it seems perfectly reasonable that we should make a conscious and systematic attempt to influence the patient by attitudes which will tend to counteract the earlier and damaging ones. This can be done only when we understand something of the psychodynamics of the case and are consequently able to discern what the individual's needs are, both conscious and unconscious. Some of the problems encountered in carrying out this program have been discussed in the hope that they may prove helpful to those interested in carrying out a similar program. This particular part of hospital management has received very little notice in the literature, and it is hoped that this may provoke further trial and discussion, because refinements and more understanding can make it even more valuable.

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PLAN FOR SCREENING, INDUCTION, AND UTILIZATION OF MAN POWER [1]

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We live in troubled times; things happen fast around us and may at any time happen still faster. As citizens we are entitled each to our opinions as to the desirability of a program for universal military training, or selective service, and are obligated to express these opinions and to make our beliefs felt. As psychiatrists, however, we have the additional responsibility of making plans which will insure that proper psychiatric methods and full knowledge of mental hygiene and other similar disciplines will be employed in the event that the majority opinion calls for any form of mobilization. No matter what our own beliefs, we must help administer whatever military program is adopted for the greatest good of the community at large.

In World War I psychiatrists learned a great deal about human behavior under the impact of war stresses, and about the treatment of mental disease as well as the prevention of high rates of breakdown. The total record of psychiatric experience in the first war was not published until 12 years after the armistice. By that time practically no one was interested in reading about it, and when World War II drew upon us, much was forgotten, and we had to relearn the difficult lessons of 25 years before. In World War II we also learned new things, but already we appear to be in imminent danger of forgetting these. It is to call attention to what was learned and to what plans, in the light of that new knowledge, should be made for any further emergency that this paper is presented. This material and these ideas represent the combined thinking of a group of experienced psychiatrists who during the war served as neuropsychiatric consultants to major commands. I subscribe to all these ideas but claim no credit for them.

Before the last war it was stated that proper screening at an induction station level would eliminate psychiatric casualties. As we all know, this statement was far too optimistic. Induction screening proved to be a very uneven matter, depending on the number of psychiatrists who could cooperate in any given community, and consequently on the load per psychiatrist. Under optimum circumstances such as existed in Boston, New York, Philadelphia, and Chicago, there is no doubt that this screening was carried out reasonably effectively. I believe it is possible to set up standards and criteria which, with the kind of organization characteristic of our best induction stations, enable detection, even on brief examination, of 90% of the patients who suffer from the disorders we are looking for. However, the difficulty comes in the fact that the criteria and standards set up were theoretical, and there is now considerable uncertainty as to whether the things we called disqualifying at the induction station level were in fact disqualifying for military service not involving combat stresses, or even for combat. The probable fallacy involved here, plus failure to take account of the effect of motivation and leadership on the psychiatric breakdown rate, are disturbing factors about present military planning and, we feel, require careful scrutiny.

Present personnel planning appears to be essentially a perpetuation of what was done in World War II. It implies that there should be relatively high standards of induction with the concept that induction screening is the preferable method of selecting man power. As in the last war, it implies also that only those men should be retained in the military service who fit into the war-time military economy, and that those who do not fit and who do not meet the

[1] Read at the 104th annual meeting of The American Psychiatric Association, Washington, D. C., May 17-20, 1948.

From the Neuropsychiatric Service, Cushing Veterans Administration Hospital, Framingham, Mass., and the Neurological Unit, Boston City Hospital, and the Department of Neurology, Harvard Medical School.

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single standardized training pace should be discharged. The last war unfortunately also stressed the principle that hospitalization and the medical department can be used to dispose of ineffectives and to control the size of the Army. This resulted in tremendous waste of medical man power and time.

The results of such a program, as they developed in the last war, are the loss of approximately 40% of potential man power to the military service—30% at induction stations and 10% by disability discharge. Because so many men were exempted, there was a decrease in motivation, and consequently in the effectiveness of the remaining 60%. This decrease in motivation resulted in a generally lowered level of morale both within and without the armed forces. Finally, the use of the hospital to control the size of the Army, with the consequent waste of the physicians' time, resulted in a lowering of morale among physicians in the service.

Let me emphasize the error in the concept that induction screening is an effective method. Many studies and the experience of all of us indicated, we feel, that there is no test but the test of trial which effectively separates the sheep from the goats. Many severe psychoneurotics performed at the highest level under combat conditions, and many, many more carried on noncombat military duties when they were adequately motivated. Only one soldier in 10 enters actual combat. The methods of the last war made scores of thousands of men unavailable for the many noncombat duties, and resulted in shortages of man power all along the line. It becomes reasonably obvious that, in any future mobilization, there must be a more nearly complete utilization of man power than ever before. Under these circumstances we cannot afford to eliminate 40% of the potential supply from the armed services. Assignments must be found to conserve and make use of all the remaining abilities, even of those men who are disabled for the more arduous types of service. Everything we know about the psychology of morale and motivation would lead us to believe that proper utilization of man power would effect a rise in the level of morale both among combat and noncombat troops, and in the civilian community.

If such a thrifty use of man power is to be made, it becomes inevitably necessary that programs for mobilization should include plans to assign substandard personnel to jobs within their capacities. In order to accomplish this, those professional specialists best qualified to take charge must be invested with authority to assign and reassign men to jobs within their levels of ability.

Obviously the hospital is not the place to carry out such studies. Hospitals should be reserved for sick people. Cluttering them up with men who are not ill but merely awaiting disposition not only lowers the general morale but interferes with the adequate treatment of those patients who are really in need of hospitalization.

We believe that in any future national emergency it would be of the greatest importance for the general morale of the community that universal mobilization, as outlined in the National Service Act, be put into effect. We believe further that universal military training, if it comes, should also be truly "universal" and should follow the same general principles. If the current small selective service draft is to be continued with the idea of building up a large reserve of man power, then these same principles should apply to it. If the purpose of selective service is to supply a small number of occupation troops, then perhaps the situation would be different; in that case we can consider modifications of the current plan.

To make the newly suggested policies effective and to make the best possible use of man power in any future national mobilization, including UMT and in recruitment for the Regular Army in peace time, we suggest that standards for mobilization be lowered, and the induction examination be eliminated entirely. The local selective service board or the recruiting station should weed out only those individuals completely disqualified for any kind of service by really grossly incapacitating disabilities. By this phrase, I mean such disabilities as total blindness, total deafness, acute psychosis, cardiac decompensation, and marked mental deficiency, perhaps of imbecile grade. Under the revised standards we recommend that individuals with all degrees of psychoneurosis, epilepsy, alcoholism, cardiac murmurs without decompen-

sation, and other defects be accepted if these conditions have not been entirely incapacitating in civilian life. Men should then be transferred directly from the point of induction to the training center. At this training center, induction screening will be replaced by a continuing process of screening which will occur during the first 6 months of service. Such screening will be similar to that used by the Navy during its probationary period during the last war but will have certain significant differences.

At each training center we believe there should be established a classification and assignment board. This would be patterned on the "consultation service" of the last war and would replace such consultation service, taking over all its functions in the basic training center. This new board would be headed probably by a psychiatrist, but certainly would include clinical psychologists, psychiatric social workers, general medical officers, and most important, job classification experts, personnel officers, line officers, and such others as are necessary to permit the board to function as a continuous screening, classification, assignment, and disposition agency. This board should be charged with the responsibility of constantly reviewing the status of men under its control. It would receive directly the social service histories from the community on all men admitted to the training center. The utilization of social service histories began to be developed in the last war and should be expanded to make such reviews readily available in a short time. The board should carry out the necessary physical, mental, and psychological examinations, receiving reports from company commanders and other line officers as well as from the specialists in behavior who will be attached to it. Finally, this board would be charged with the essential responsibility of decision as to usability, assignment, effectiveness, method of employing substandard personnel, and, when necessary, separation from the service of those men who are considered completely unusable after all considerations have been weighed.

There are two important implications in such a program. First, it is vital that training be diversified both in pace and in quality. If substandard men are to be used, obviously there is no sense in wasting valuable time training all of them in combat methods. Also, some substandard individuals who may eventually make good combat material will be able to acquire requisite skills only at a somewhat slower rate than do most men. Consequently, it becomes imperative to accept a basic concept of variation in both speed and type of training.

The second fundamental implication is contained in the provision that the classification and assignment board have the responsibility for separation. Obviously, those individuals who are ill and require hospitalization will be admitted to a hospital for treatment, and may on recovery be separated by the hospital. However, for many of the ineffectives separation will be carried out by the board, and there must be modification of discharge procedure so that the board can separate men with a minimum of administrative difficulty without need for admission to a hospital, or for anything approximating the kind of "trial" that was established by older regulations.

This program of continuous screening, then, at the training center will replace induction screening, and, we believe, will be much more effective. However, no method can work with absolute accuracy, and there will certainly continue to be a need for the standard consultation service, as it now exists, at advanced training levels. Perhaps such existing services should be given greater authority in the field of classification and assignment. In passing, also, it should be said that the mental hygiene lectures to officers and men, and the various activities dealing with morale, motivation, information, and techniques of leadership, seem more than ever important and should be continued and expanded.

The whole problem of postwar (or perhaps one had better say postemergency) pensions must be kept in mind. We believe that the classification and assignment board should have also the right to adjudicate line-of-duty status, and suggest that a change in the law to permit giving greater weight to opinions formulated after such prolonged observation would be a move in the right direction.

I have presented here certain general con-

siderations and a plan for dealing with the problems which we now see as primary. Details must of course be worked out, but we believe there is no inherent difficulty, and that regulations can be written which would incorporate these principles. Such a program should be adopted in all branches of the armed services. Unification of medical services would simplify the matter, but even without actual unification, the principles can be quite readily adapted to the framework of each of the armed services' present program.

We believe that psychiatrists should and will hold themselves ready to put such a program into operation, and hope that the country will not only permit it, but demand it. We are convinced that general medical officers, psychiatrists, soldiers, and the general community will all be happier with the adoption of such a program.

PRESIDENT'S PAGE

"Peace on earth, good will toward men." This hope recurs to us each December twenty-fifth. Many of us in psychiatry ponder on how we can more effectively contribute toward the attainment of this goal. As Christmas approaches, most of us pause to think especially about our friends, and to express our warm wishes and affection and appreciation for them. As we receive reminders of thoughts of us, our hostilities fall to an all-year low, and our friendliness and good will reach an all-year high.

As the year's end approaches, most of us are inclined to reflect over the events of the past year which have been of vital individual importance. Probably no psychiatrist can do this without some degree of self-evaluation, considering the failures along with the successes, the accomplishments along with those things we didn't get done.

As we look forward to 1949, it would seem appropriate that we in psychiatry might review our purposes, aims, and methods, eliminating insofar as we can the emotional scotoma toward ourselves, toward our relationships with our confrères, and our opportunities. What are the most important benefits that psychiatry has to offer?

On one of those occasions during the war, when I was in the Surgeon General's Office and feeling not too sure of what we in psychiatry were trying to do, I asked Alan Gregg, serving then as an official consultant, what he thought were the most important benefits psychiatry has to give. His superb answer, which I quoted in the introduction to my book, *Psychiatry in a Troubled World*,[1] not only is a credo for every psychiatrist but serves as a very thought-provoking year-end and new-year message.

First, psychiatry along with the other natural sciences leads to a life of reason. It explains what must otherwise excite fear, disgust, superstition, anxiety, or frustration. It breaks the clinches we otherwise get into with life and all the unnecessary, blind, infighting.

In the second place, by showing us the common rules, the uniform limitations, and liberties all human beings live under because they are human, psychiatry gives us a sort of oneness-with-others, a kind of exquisite communion with all humanity, past, present, and future. It is a kind of scientific humanism that frees us from dogma and the tyranny of the mind, a relief from the inhuman strait-jacket of rigid finality of thought.

Third, psychiatry makes possible a kind of sincere humility and naturalness I've never received from any other study or experience. Perhaps suffering accomplishes a similar miracle but too often suffering lessens one's delighted conviction in the liveableness of life—I don't know for I've not known much suffering yet. But I know that psychiatry provides the material for a quiet but extraordinarily tenacious kind of humility and a sympathy that is honest and eager.

And, lastly, psychiatry makes it possible *to bring to others* these things I've mentioned: the light of reason, the oneness-with-others and an attitude of sympathetic humility, and understanding. Also it makes one able to receive these same gifts—and I would count him a poor physician who cannot receive as wisely and thankfully as he gives. So, in short, psychiatry makes possible by teaching and example the exchange of these things so desperately wanted by human beings and they are so healthy and happy when they get them and give them!

I am almost sure you will say, "But I don't mean that sort of thing! What specifically has psychiatry in the way of benefits?"

I didn't mention the rewards research offers to human curiosity. Nor the satisfaction of being of help to poor, battered, dependent, frightened people and the justice of giving them the breaks just for once. Nor the immense economy of patching lives to a point of meeting life's demands. Nor the hope that we may understand what disease connotes as well as what it denotes. Nor the possibility that through psychiatric understanding our successors may be able to govern human politics and relationships more sagely.

Would that every Associate, Member, and Fellow of The American Psychiatric Association could have this vision of his job and his opportunities! We are on the threshold of a *new* year. If we individually put into practice Dr. Gregg's conception of psychiatry, we can more effectively contribute to "Peace on earth, good will toward men."

WILLIAM C. MENNINGER, M. D.

[1] Macmillan Co., New York, 1948.

PROFESSOR EGAS MONIZ PLACES THE COLLAR OF THE ACADEMIA DOS CIENCIAS DE LISBOA ABOUT THE NECK OF DR. WALTER FREEMAN, WITH PROFESSOR ANTONIO FLORES ASSISTING.

COMMENT

INTERNATIONAL CONFERENCE ON PSYCHOSURGERY[1]

The International Conference on Psychosurgery met in Lisbon August 3 to 7, 1948. It was rather small, scarcely larger than the international committee, many of whose members were unable to attend because of various stringencies, chiefly financial and political. However, there were 60 foreigners registered and half as many Portuguese, and 16 countries were represented. The United States delegation was led by Freeman, the general secretary, and included Suitt of Durham, Wycis of Philadelphia, Ziskind of Los Angeles, Stuck of Denver, Petersen of Rochester, Minn., Peyton of Minneapolis, and Scoville and Burlingame of Hartford. Egas Moniz was president and came out of retirement to open the conference which had been assembled in his honor. The vice-presidents were Antonio Flores, Barahona Fernandes, and Almeida Lima, professors respectively of neurology, psychiatry, and neurological surgery at the University of Lisbon.

Titles and abstracts of 56 papers were received in time to be entered on the program, but less than half of these were delivered. English was the official language, although French was used at times in discussion. Thus the confusion of tongues was largely avoided. No official pronouncements were made and no plans were disclosed for the organization of an international society; the conference was assembled largely in order that the various workers in the field of psychosurgery get to know one another and exchange opinions. This objective was aided by several social functions planned by the committee on arrangements and accompanied by the best food and wine to be had on the continent of Europe. Cameras were much in evidence.

Various surgical procedures were described by their originators. Egas Moniz and Almeida Lima told of their first attempts. In the absence of Pool, LeBeau described topectomy; Peyton discussed the advantages of bifrontal lobectomy and Wycis dealt with thalamotomy; Scoville discussed the advantages of undercutting the cortex; Petersen emphasized graded incisions in the frontal white matter, while Dax stressed the differential sectioning of upper and lower quadrants in the frontal lobes, and Yahn told of prefrontal leucotomy in 3 stages, cautioning against too extensive an operation. Almeida Lima demonstrated his method of operating and Freeman performed transorbital lobotomies on 2 patients.

Psychosurgery was further discussed as regards indications. Epilepsy is not relieved although the disturbed behavior of the epileptic may be favorably modified. Children with uncontrollable states of overactivity either of the schizophrenic type or following cerebral injury or infection are benefited. Painful conditions of all sorts are gratifyingly relieved by operations on the frontal lobe. There was general agreement that, as far as neuroses and psychoses was concerned, prefrontal lobotomy relieved emotional tension to a striking degree, and that the operation was of no value in emotionally deteriorated patients. There was no unanimity as regards psychologic and intellectual changes. One session was devoted to a round table discussion of results. Some 8,000 cases of psychosurgery were reviewed by various speakers. The results differed widely; however, the most telling point was made by the Lisbon authors. It seems that Almeida Lima performed his operations in 3 different hos-

[1] At our request Dr. Freeman, who attended the International Conference on Psychosurgery, submitted the accompanying report on the proceedings of this conference. He also kindly permitted reproduction of the photograph on the opposite page, showing his investiture by Professor Moniz as a Member of the Academy of Sciences of Lisbon. This Academy was founded in 1751 and is the highest scientific body in Portugal. Its membership is limited to 40. Dr. Freeman is the only American-born member.

A further comment and report by Dr. Burlingame, who also attended this Conference, will appear in the next issue of the JOURNAL.—ED.

pitals: the public mental hospital, the university clinic, and a general hospital. The percentage of favorable results rose from 15% to 35% to 65%, thus revealing the importance of selection of patients.

An appropriation has been made by the Portuguese government to publish the transactions.

WALTER FREEMAN, M. D.,
Washington, D. C.

ENGINEERS OF PEACE

The scientists who met in Washington this summer heard their president say that science, or the cooperation of scientists throughout the world, could lead mankind into the paths of peace.

At about the same time a national body of lawyers in annual assembly were admonished that they must become the physicians of society to promote a better world order.

Perennially from thousands of pulpits preachers prescribe the religious life to ensure peace on earth.

Speakers at the World Congress on Mental Health this autumn extolled psychiatry and mental hygiene as government agencies to bring about peace and harmony among the nations.

The theme of the 1948 Conference on Science, Philosophy, and Religion, which has been debating the democratic way of life since 1940, was: education as a corrective of disturbed world conditions.

Linguists believe that an international language will help toward peaceful understanding among the peoples; and they point out that the language of science alone is understood by scientists everywhere—that the language of science alone is capable of being translated from tongue to tongue without loss.

There have been Utopian plans in plenty since Plato described his ideal state; but these have had to do with single communities. Only aspiring world tyrants promise global paradise.

And what is the record?

Religion after its fashion preaches the good life, and has ever been a breeder of wars. The law is an instrument of social order and equity, and legal techniques are also useful to nullify the operation of law and defeat the ends of justice. Science discloses the secrets of nature and turns them to the service of man; it also provides engines for the destruction of man and all his works. Mental hygiene and psychiatry and the social sciences have conferred benefits local or temporal, but they have not made the mind of man whole or caused the human animal routinely to behave himself singly, collectively, or internationally.

And what of education? Any satisfactory educational program involves obviously both the competency of the teacher to teach and the competency of the learner to learn. The unwholesome-minded individual teacher cannot properly instruct; and a system of indoctrination—replacing proper education—based on perverted nationalistic ideology can have only a blighting effect on those subjected to it. But assuming the possibility of creating ideal teaching agencies throughout the world, there is still the widely varying educability of the individual to be reckoned with. Neither can all attain an I.Q. of 100 or better, nor can all achieve intellectual maturity in other respects, stabilizing social consciousness, and ethical controls.

In consequence, perverted doctrines gain currency. Socialistic creeds, however designated, and of all colors from shell-pink to ox-blood, would seem to contradict an elementary biological principle, namely, that of classification. A classless society has never existed, so far as we know, and it is safe to infer that it never will exist as long as human beings are of unequal wits. A society may be reduced to a slave population under a tyrant, but that is a class society at its worst extremity; and while tyrants can be obliterated it is not in their nature to obliterate themselves, so long as power is still in their hands.

It has become a trite saying that the poor are always with us, and to date we lack evi-

dence that the adverb "always" does not include past, present, and future. Similarly, the mental defective is always with us, and the psychopath, and the criminal. Has anyone the hardihood or the innocent optimism to suggest the contrary? Cooperation on a world basis of the beneficent agencies above mentioned would go far toward improving living conditions on this planet; it might be calculated to reduce, but it would not eliminate, poverty or mental deficiency or crime.

Certain social saviors have told us that the remedy for poverty is to "share the wealth." If such distribution were possible so as to abolish as of today the rich and poor as classes, it is a safe wager that the rich and poor would be with us once more tomorrow and distribution of the wealth would have to begin all over again, and so on *ad infinitum*.

The best systems of eugenics and euthenics that science can devise will not standardize all I.Q.s at par.

Nor is it conceivable that correction of all known conditions that contribute to antisocial conduct would cause to disappear from among us the psychopath or the criminal—and these personages sometimes by mischance are able to climb to high positions of authority and power.

Individuals with antisocial tendencies of whatever stripe, ambitious fanatics, persons with Messiah or Cæsar complexes are ever present in society. If they disturb the peace local health or police authorities can deal with them. When a bandit nation disturbs the peace of the world there has been hitherto no ultimate remedy but war. Many of the peacetime interests of humanity, health and welfare agencies, have already been organized on a world scale. Science and medicine are international, with most countries of good will sharing and cooperating. But to protect and promote the constructive undertakings in which all nations must participate the requisite supranational authority with power is still lacking.

THOSE WHO HAVE GONE

Each year the Association is obliged to take note of the way of Nature in recording the death of a number of its valued Fellows and Members. In the opening ceremonies of the annual meeting the names of those who have gone during the year are read aloud from the speaker's desk while the membership stands in silent tribute of respect.

In the year that is past the loss has been unusually heavy. During the twelve-month, October 1947–September 1948 inclusive, six former presidents of The American Psychiatric Association were lost to us. Dr. Richard H. Hutchings (President 1938-39) died in October 1947; Dr. Clarence O. Cheney (President 1935-36) in November; Dr. James V. May (President 1932-33) in December. Memorials of Dr. Hutchings and Dr. Cheney were published in the December 1947 issue of the JOURNAL, and of Dr. May in the February 1948 issue. In June 1948 Dr. C. Fred Williams (President 1934-35) died. His memorial appeared in the September 1948 JOURNAL. Both Dr. J. K. Hall (President 1941-42) and Dr. Ross M. Chapman (President 1937-38) died in September. Memorials to them are in preparation.

Among other prominent deceased Fellows were Dr. A. A. Brill, who died in March of this year, and Dr. Abraham Myerson, who died in September. The memorial of Dr. Brill will be found in the July issue and that of Dr. Myerson in the current number of the JOURNAL.

We salute the memory of these honored and devoted Fellows who have gone before.

NEWS AND NOTES

WORLD MEDICAL ASSOCIATION.—The General Assembly of the World Medical Association held its second meeting in Geneva, September 5-7, 1948. The first meeting of the General Assembly was referred to in the October 1947 issue of the JOURNAL (page 282). It is gratifying to note that the sessions of the recent meeting were conducted with efficiency and despatch and reflected a warm spirit of harmony among the delegates from the several nations. Much credit for this orderly and businesslike procedure was given to Dr. T. C. Routley, Chairman of the Council, and to Dr. Louis H. Bauer, Secretary General.

It had been planned to hold this year's meeting in Prague, with Dr. Stuchlik as president. After seizing control of the government the Communists abolished the Czechoslovak Medical Association. In consequence, the place of meeting had to be changed, and Dr. Stuchlik, although able to attend the meeting, was not permitted to serve as president. The U.S.S.R. is not a member of the World Medical Association.

One of the main issues considered was the relationship of medical care to social security. There was no doubt as to the temper of the Assembly on the desirable status of medical practice, and there was little sympathy with programs of intervention in medicine by the State.

One of the interesting developments was the appointment of a committee to draft an international code of ethics governing the practice of medicine throughout the world, with the hope that such a code might become truly universal through adoption by the medical associations of all countries.

CLEARING HOUSE ON CHILD LIFE RESEARCH ESTABLISHED IN CHILDREN'S BUREAU.—A clearing house for research in child life has recently been established in the Children's Bureau, a unit of the Social Security Administration, Federal Security Agency, Washington, D. C. This new agency is the result of a series of conferences held during the past year to review what is going on in research in child life and to consider the needs for further research. Representatives of many fields in child life research participated in these conferences. In addition to numerous child health, welfare, and study agencies, university departments of psychology, sociology, pediatrics, education, anthropology, etc., were represented.

The Children's Bureau will be a center for information about projects pertaining to children and mothers being undertaken by one or more of the various disciplines. A bulletin will be released in 1949 to inform research workers about on-going research in child life. The clearing house will provide information to research workers on request.

Inquiries may be directed to Dr. Clara E. Councell, Director, Clearinghouse, Children's Bureau, Federal Security Agency, Washington 25, D. C.

DR. KETTLE SUPERINTENDENT AT NORWICH.—The Board of Trustees of the Norwich (Conn.) State Hospital have announced the appointment of Dr. Ronald H. Kettle as superintendent of the hospital as from August 25, 1948, succeeding Dr. Riley H. Guthrie, who resigned the superintendency July 28, 1948. Dr. Kettle had served as assistant superintendent since February 19, 1941, except for the period October 1942 to March 1946 as flight surgeon in the U. S. Air Force, from which he was discharged with the rank of lieutenant colonel.

THE LANGUAGE OF SCIENCE.—"There is a deep distinction between poetic and scientific language, but there should be none between literary and scientific language. It is worth while to insist on that, because some of our men of science have been so badly educated that they have no sense of literary virtue; they write like barbarians and drag their scientific ideas in a kind of mud. They cannot even express themselves simply and clearly, at least not without the help of secretaries, editors, and 'rewriters.'"—GEORGE SARTON.

"One cannot improve the language without improving science, nor science without the language, and however certain the facts be, however just the ideas which those facts evoked, they would transmit only false impressions if we lacked exact ways of expressing them."—LAVOISIER.

SOCIOMETRIC INSTITUTE.—Announcement has been received of the opening of an educational and research center in marriage and family relations, a division of the Sociometric Institute, 101 Park Ave., New York 17, N. Y. The directors of the center are Dr. Henrietta Fleck (Education); Florence Moreno, M. A. (Research); and Leona Kerstetter, M. A. (Administration). The center will offer a program of courses, seminars, and group studies in the problems of marriage.

THE AUGUSTE FOREL CENTENARY.—The distinguished Swiss psychiatrist was born at Morges September 1, 1848. He took his doctor's degree at the University of Zurich, and after serving two years as privat-dozent in psychiatry at the University of Munich he received at the age of 31 the double appointment as director of the psychiatric clinic Burghölzli and professor of psychiatry, University of Zurich. In 1898 Forel retired to his native canton to devote himself to writing and private practice. To his clinic at Chigny near Morges came patients from all parts of the world. His literary output includes some 500 items. Auguste Forel died in 1931 at the age of 83.—From *Médicine et Hygiène* (Geneva) Sept. 15, 1948.

MESANTOIN POISONING IN TREATMENT OF EPILEPSY.—Bloom, Lynch, and Brick report (J.A.M.A., Oct. 16, 1948) a case of "mesantoin" poisoning with aplastic anemia and recovery in the treatment of "grand mal" epilepsy. They conclude, "The many favorable reports on 'mesantoin' in the treatment of 'grand mal' epilepsy indicate that probably only a few persons are sensitive to this hydantoin, but when anticonvulsant therapy is started it must be continued over a long period, and even the finding of 1 sensitive person should lead to a conservative policy when this drug is utilized. It is our suggestion that with any of the hydantoinate group, hematologic studies be performed at least once a month and any sudden drop in the hemoglobin or granulocytes should be viewed with suspicion. Patients receiving these drugs must be warned of the necessity of frequent blood studies."

ROSTER OF INDUSTRIAL PSYCHIATRISTS.—The Department of Human Relations at the School of Industrial and Labor Relations at Cornell University is attempting to compile as complete as possible a roster of all psychiatrists who have at any time had industrial experience. Will any such please send their names to Dr. Temple Burling, Department of Human Relations, New York State School of Industrial and Labor Relations, Cornell University, Ithaca, N. Y.

OPENINGS IN ARMY MEDICAL SERVICE.—The Personnel Division of U. S. Army Medical Service Corps invites correspondence from medical officers or allied personnel who might wish to be considered for positions in the Regular Army, or who might desire tours of active duty for specified periods as reserve officers, or who might wish to become reserve officers and remain in an inactive status. Excellent opportunities are available for those with the necessary qualifications in medicine and the allied disciplines.

Persons interested may write to the Office of the Surgeon General, Personnel Division, MSC Procurement Section, Room 2D 526a, The Pentagon, Washington 25, D. C.

THE AMERICAN BOARD OF PSYCHIATRY AND NEUROLOGY, INC.

The following were certified at San Francisco, Calif., October, 1948.

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BOOK REVIEWS

BRAIN AND INTELLIGENCE (A quantitative study of the frontal lobes). By *Ward C. Halstead.* (Chicago: University of Chicago Press, 1947.)

This monograph is an analysis of the results of a series of studies carried on over a 12-year period at the University of Chicago during the author's tenure of a National Research Council Fellowship in psychology. The orientation of this report is in terms of an attempt to establish a relationship between the function of intelligence and brain structure.

At the outset the author indicates the unsatisfactory state of our conceptions of intelligence, and after describing, and rejecting as inadequate, the varied and frequently vague "psychometric," "clinical," and "neurological" concepts of intelligence he propounds a concept of "biological intelligence." Biological intelligence he describes as compounded of 4 basic factors which he has determined by a statistical method employing factor analysis of the results of 27 neuropsychological tests applied to 237 subjects (30 controls, 50 lobectomies, 9 lobotomies, the remainder head injury cases).

The 4 factors are described as (1) "C—the central integrative field factor," which is the matrix of past experience against which new experience is tested; (2) "A—the abstraction factor;" (3) "P—the power factor," which is related to instinctive striving and affective experience; and (4) "D—the directional factor," which is the medium through which the foregoing process factors are exteriorized. The author indicates that he does not consider that these 4 factors give the whole story but that other conditions, such as the level of consciousness, are operative in "usable" intelligence. The 4 factors, however, are basic, are dynamically interrelated in an organized unity, and can be shown to undergo selective dissolution under varying conditions.

Impairment of biological intelligence can be shown by the use of an impairment index constructed from the pertinent results of the factor analysis. It is not claimed that the index indicates degree of impairment but rather the chances that impairment is present. Selective impairment of a reversible type has been shown in anoxia. In the cases in this study high values of the impairment index (6 times that for normal controls) have been obtained in bilateral frontal lobectomies and lower values in other lobectomies and lobotomies. Convalescing closed head injuries showed a significant similarity of value to frontal lobectomies. The impairment so indicated is independent of psychometric ratings, as these have been shown in such cases as the above to show no significant change. It is interesting to note also that impairment of biological intelligence as indicated by the index was not significant in the small series of bilateral frontal lobotomies. Other interesting observations and speculations are made which will not be mentioned here.

The average clinician will no doubt find the outline of the methods of this investigation somewhat beyond him; he will probably find the concept of biological intelligence more congenial to his thinking than that of psychometric intelligence; he may see in this study the possibility of being able to measure aspects of intelligence which he has formerly had to guess at.

In this book psychology, physiology, statistics, and mental hygiene are blended to produce a stimulating study of those interested enough to wade through it.

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LA PSICOSIS PELAGROSA; UN ANÁLISIS ESTRUCTURAL DE LOS TRASTORNOS PSÍQUICOS (The pellagrous psychosis; a structural analysis of the psychic disturbances). By *Dr. Bartolome Llopis.* (Madrid: Editorial Cientifico Medica, 1946.)

Pellagra has been intimately linked with the history of Spanish medicine. Its somatic and psychological manifestations were effectively described by Casal 2 centuries ago. In the course of the recent Spanish civil war, Dr. Llopis, clinical chief of the Neuropsychiatric Service of the Hospital Provincial of Madrid, had occasion to observe many cases of this disease. The drastic food restrictions suffered by the population of Madrid gave rise to a veritable epidemic of pellagra, of a severity never before experienced. Therapeutic measures to cope with the illness were most inadequate, nicotinic acid and vitamins generally being conspicuously absent. Under these tragic circumstances the author followed the course of illness from its earliest manifestations to the frequently fatal issue. He points out that the clinical material—118 cases personally observed—is made up exclusively of hitherto healthy individuals. No previous psychotic cases were included in the study and the factor of alcoholism played little if any part.

This work is of great interest, not only as a contribution to the psychopathology of pellagra, but to clinical psychiatry in general. It describes with selective acumen and remarkable exactitude the psychic alterations of pellagrous patients, tracing the gradual transition from the milder to the more severe disturbances. The author sets up 4 classifications of psychiatric syndromes in pellagra: (1) a neurasthenic syndrome; (2) a pseudodementia or apathetic-adynamic syndrome (hypotonia of consciousness); (3) the delirious-hallucinatory syndrome or oneiric confusion of consciousness; (4) the stuporous syndrome or profound obnubilation of consciousness. The differences between these various pictures are, he believes, purely quantitative, the common fundamental disturbance being the gradual descent in level of consciousness.

Analysis of these pellagrous pictures leads the author to the following conclusions. In considering psychotic pictures an endeavor should be made to differentiate 2 classes of constituent syndromes: those of the *state* or *level* of consciousness, and those of the *content* of consciousness. Only the former can be viewed as disturbances of psychic activity, the latter being merely pathoplastic, somatic rather than psychic in origin. In pellagra it may be clearly seen that the content of consciousness is vastly influenced by the sensory disturbances characteristic of the disease. Thus, while the various syndromes of the state of consciousness depend on the degree of disturbance of psychic activity, those of the content depend on the different internal sensations provoked by the pathologic process, according to its possible organic localizations. The psychic states in pellagra are essentially the same as those observed successfully in neurasthenia, in manic-depressive psychosis or paranoia, in schizophrenia, and in forms of exogenous reaction. The possibility that there are only gradual transitions between all these illnesses should be kept in mind.

This may well be, as is suggested in the prologue to the volume by Prof. Lopez Ibor, the best descriptive work in pellagra from the point of view of clinical psychiatry. As a contribution to psychiatric nosology, however, and an approach to the structure of the psychoses, it may be of even greater importance.

C. C. B.

MODERN CLINICAL PSYCHOLOGY. By *T. W. Richards, Ph. D.* (New York: McGraw-Hill Book Company, Inc., 1946.)

Dr Richards has undertaken to write an introductory text in clinical psychology at the level of the college junior. Consequently, his book must be reviewed within that frame of reference. In view of the dependence of clinical psychology on fundamental courses in learning, statistics, abnormal psychology, research methodology, and general psychology, it is questionable that any introductory text aimed at college juniors could be sufficiently extensive to be entirely meaningful. Within this limitation, however, Dr. Richards has given a good overview of some of the concepts and problems in the "behavioral adjustment, not only of abnormal (or diseased) individuals, but of all kinds of people."

His first 2 chapters are given over to a general description of the role of the clinical psychologist, concluding with the outline of the 3 phases of individual behavior of concern to the clinical psychologist: motivation; capacity; and control.

Chapters III, IV, and V are devoted to brief treatments of methods of psychological appraisal, approach to the patient, and the importance of physical examinations in the clinical psychologist's practice. The chapter on methods of psychological appraisal gives inadequate attention to the area of psychometrics, including both objective and projective test materials. The underemphasis is characteristic of the entire text.

Chapters VI and VII deal with the appraisal of capacity wherein capacity is defined generally as intelligence or some synonymous trait. There is no discussion of differential aptitudes or measured achievement or similar subcategories under the general heading of capacity.

Chapters VIII and IX deal with the appraisal of motivation and reflect most clearly the author's admitted emphasis on the "psychodynamic approach." It is interesting that, in what is essentially a Freudian presentation, Dr. Richards finds no space to mention the concepts of the ego, the id, or the superego. He has chosen from the entire Freudian literature too limited a set of constructs for adequate presentation of the dynamics involved. These chapters appear to be the weakest in terms of giving the student theoretical formulations that are crucial in the psychodynamic approach.

Chapters X, XI, and XII deal with the appraisal of control, with Chapter XII presenting an interesting set of hypotheses regarding a continuum of inadequate solutions ranging from the socially oriented to the personally elaborated.

In Chapter XIII the author attempts to account for mental illness in terms of precipitation and predisposition. It is in this section of a text that the importance of learning theory should appear as a determinant of adjustment or maladjustment, but only the briefest mention is made of "a process of conditioning" in accounting for the dynamic properties of the personality prior to, and during the onset of, traumatic experiences. More questions are raised in this chapter than can be answered from the available research, but even so, the summary treatment of factors involved is inconclusive.

Chapter XIV entitled "Readjustment" introduces the author's ideas regarding therapy, and here again Dr. Richards deals somewhat superficially with psychodynamic concepts of transference, reaction formation, abreaction, and related Freudian descriptions of the clinician-patient structure. Twenty-one pages are given over to the reproduction of excerpts from nondirective interviews out of a total chapter allocation of 54 pages. Again in an attempt to present an extensive series of concepts the author appears to be trapped in a position of occasional superficiality and occasional overemphasis.

In the main Dr. Richards has given a sound though limited treatment in this text. His errors appear to have been unavoidable by the very nature of the task he set himself, and these are essentially errors of omission and more detailed theoretical treatment. The text can be at best no more than an introductory treatment. It will have to be supplemented by more fundamental bibliographic assignments and references to special journal articles if the beginning student is to have a clear picture of the complexities that are presented in clinical psychological practice.

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LOS ANGELES MURDERS. Edited by *Craig Rice*. (New York: Duell, Sloan, and Pearce, Inc., 1947.)

This book is one of a series called "Regional Murders." Consideration has already been given to 4 city communities and the present volume is the fifth. The publishers announce that at least 4 other collections are in preparation. Just why it has seemed profitable to thus regionalize "murder most foul" in this fashion is not entirely clear. It may be an attempt to reach the sensation-hungry of the different localities on the assumption that they, knowing something of the occurrences themselves, would grasp at the opportunity to know more or to get a recurrent macabre thrill from rereading. That there are distinctive differences in the techniques of murder among these localities is unlikely. There may be local differences in what follows the actual deed. The present volume deals with 7 cases occurring between 1921 and 1944. Each is presented by a different author. Six of these are well-known, or fairly well-known, authors of "whodunits." The seventh and one of the others are attorneys. On the whole one would say that their stories spun out of whole cloth are considerably more interesting and better written than are their attempts to report the real thing.

The editor contributes as her portion an introduction in which she gives a brief historical sketch of the city's history, mentions some of the outstanding accomplishments in murder that have occurred there, describes the Murder Club and in fact generally prepares the reader by a rapid survey of some at least of the outstanding oddities that must surely make Los Angeles unique.

There is little need, in fact none at all, for a detailed review of the 7 presentations. The first case reported illustrates some features of the administration of justice that, to say the least, are surely unusual. This is the case of Madelynne Obenchain charged with the murder of one Belton Kennedy. There may have been an accomplice—at least one was named and charged. The five trials cost $37,000 and the last resulted in acquittal. It is evident that while the case was still *sub judice* reporters were permitted to interview the accused and comment freely upon the case; in one instance they bought, paid for, and published a "confession" that the police did not have. The accused is depicted as a frivolous, impulsive person, addicted to occultism, not averse to courtship by pistol, and quite prepared to marry while in custody. That she battened on her unsavory notoriety is evident enough. She survived the 5 trials and later contributed to the local press a commentary on the trial of Aimie Semple McPherson. The whole thing arouses amazement at "what may happen there."

The remaining 6 leave much the same impression. The repeated evidences of ineptitude of police, venality of lawyers, loose court practices and all the antics of a savage undisciplined public leave one with a sense of disgust and futility.

A. T. M.

HOW LIFE IS HANDED ON. By *Cyril Bibby*. (New York: Emerson Books, Inc., 1947.)

The author's understanding of child and adolescent psychology, as well as his grasp of comparative biology and his ability to present facts and incite attitudes, make this book as impressive to adults as it is delightfully informative reading for its audience of children and young adolescents. It is therefore bound to have a wide circulation. Abundantly illustrated, with glossary, index, and teaching aids, it would lend itself to use as a textbook in schools that are trying to give education on reproduction.

It is possible that the author's position as instructor in a boys' school has turned his eye too singly to the artificial restrictions so commonly maintained in educational systems, public or private. Whatever the reason, it is a pity that such an effective piece of literature for the young should be marred, as this is, by catering to the obsolete idea that correct sex education requires the fostering or pretense of a blind spot in children and young adolescents, in regard to the strong pleasure element in sex.

That a schoolteacher and official so well versed in the thought-ways of growing boys and girls should ignore the damage long recognized as being likely to occur at this point is a sharp commentary on the departmentalization of the sciences that have to do with human living. Biology and psychiatry should be on more than speaking terms.

If all the teachers of biology who undertake to give education on reproduction to their pupils try to omit, as Mr. Bibby has so pointedly done, any reference to the pleasure element in human sex behavior, the resulting lopsided sophistication of the boys and girls will be potentially troublesome. They will know in considerable detail how spermatozoa pass from the father to the mother but will have less basis than before their indoctrination for supposing that the sex union of a man and woman could be a compelling end in itself.

The children and young adolescents who already imagine the process of mating to be painful get no reassurance on that score. Those who have begun to wonder if, and why, people have sexual intercourse when they do not want a baby get no help in their confusion. The young adolescent who has run into suggestions of the vast pleasurableness of sex contact, including mating, finds not a word here to suggest that nice adults know anything of the situation he has discovered.

Earlier books on the sex education of children, both in this country and in England, have included statements that sexual intercourse is so delightful that it is enjoyed by adults, even when they are not trying to become parents. (Mannin, 1938; Chesser and Dawe, 1947, in England; Groves, 1936; Levine and Seligmann, 1942, in the United States.)

GLADYS HOAGLAND GROVES,
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NEW FIELDS OF PSYCHIATRY. By *David Levy, M. D.* (New York: W. W. Norton Company, 1947.)

This book is an outgrowth of the author's Salmon Memorial Lectures. It is an interesting, provocative, and stimulating summary on what psychiatry has to offer beyond the psychopathic hospital. From the relatively old field of child guidance to industrial psychiatry and the most recent invasion of international politics, the psychiatrist has either spontaneously undertaken or has been called upon to make his contribution. Just what the psychiatrist has done and can do is discussed in the form of illuminating anecdotes based upon the author's personal experience in these various fields.

Outstanding is the author's tribute to other agencies. He shows by case histories how psychologist, social worker, and psychiatrist can effectively work as a team in studying a situation. This teamwork holds true in all new fields of psychiatry.

Political psychiatry is treated at great length. The methodology used in the evaluation of future leaders in Germany is clearly discussed. Despite the apparent difference in the problems of denazifying Germany and those presented in understanding the mentally sick, psychiatrists will find the hurdle not too great. It requires the application of basic dynamic principles plus teamwork, initiative, and research.

This book gives both stimulation and reassurance to those who are being called out of the mental hospitals to do a much needed job in new fields of psychiatry.

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LAS ENFERMEDADES MENTALES EN CUBA. ESTUDIO ESTADISTICO. By *Dr. José Angel Bustamente.* (Havana: Tamayo y Cia, 1948.)

Dr. Bustamente took the occasion offered by the requirement that a thesis be written before an instructorship is given in his country to present a subject that interests him; namely, the statistics of mental illness. The little book shows that the author went deeply into his subject. It begins with a general statement of the philosophy and uses of statistics in general, with emphasis on their sociological value, and then in simple language outlines the various methods. Thus oriented the reader is presented with the special statistics that apply in psychiatry, is shown the statistics for mental disease in countries other than Cuba, and finally the statistics for Cuba, compared with other countries. In Cuba the preferred classification is that approved by our Association. The author outlines this system and others, such as Kraepelin's and Adolf Meyer's, and discusses the comparative operative value of each. He points out shortcomings in the present situation. Generally speaking, this is an excellent brief account of what a psychiatrist ought to know about statistics, adapted to Cuban conditions. A booklet for North Americans on the same plan would be very welcome.

Comparisons of Cuban data with those of the United States show a fairly near frequency of the same psychoses (or at any rate diagnoses) in the two countries. Schizophrenia leads, then comes manic-depressive psychoses, but the rest of the breakdown is not quite the same. In Cuba, instead of the order found here (arteriosclerosis, senile psychosis, general paralysis, alcoholism, psychoneuroses) the descending frequency goes: paranoid states, epilepsy, general paralysis, cerebral syphilis, and psychosis with mental debility. Bustamente suggests that the campaign against syphilis in the United States may be responsible for one feature in this difference; different provision for the care of the feeble-minded in the 2 countries also may affect the order; and similarly Cuban hospitals by law must admit many psychopaths who would go into reformatories in the United States. But the statistics apparently have no deep biological, or racial meaning.

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SYMPOSIUM ON MEDICOLEGAL PROBLEMS. Edited by *Samuel A. Levinsohn, M. D., Ph. D.*, for The Committees of the Institute of Medicine and The Chicago Bar Association. (Philadelphia: J. B. Lippincott Company, 1948.)

This symposium on medicolegal subjects should be of great interest to any and all physicians who are anywise concerned with the relationship between law and medicine. It will be of no special interest to psychiatrists, but this means merely that no part of the symposium is especially directed or oriented toward psychiatric participation in legal medicine. Any psychiatrist, however, who has a particular interest in medicolegal relationships would do well to study this symposium.

The 2 professions got together in Chicago and considered 6 separate subjects: (1) "The Medical Witness in Court: Expert Testimony," (2) "Artificial Insemination: Medicolegal Implications," (3) "The Practice of Pathology and its Medicolegal Problems," (4) "Operations to Produce Sterility: Medicolegal Implications," (5) "Trauma and Tumors in Industrial Medicine," (6) "Scientific Tests in Evidence: Blood Grouping Tests in Disputed Paternity Cases; Chemical Tests for Intoxication." Each topic was discussed by both a lawyer and a doctor, after which the audience joined in. All the presentations were of high order; and the incisive offerings from the audience were not the least valuable contributions. Although some of the topics might be of little interest to a particular physician, they are all important in the general relationship between the professions. The topic which is probably most important and which, therefore, should have had most space and ablest handling was, unfortunately, the least well dealt with. That is "The Medical Witness in Court: Expert Testimony." The medical side of this particular subject was largely devoted to the presentation of the Minnesota Plan. That plan, of course, is not unique to Minnesota. Similar plans have been followed in various states. What would interest physicians in such a discussion would be some background concerning trial methods of bringing forth facts and opinions. The average physician is a mere babe in

the woods so far as court relationships are concerned. This is unfortunate because it has often led to the abandonment of participation in court procedures to specialized quacks. There is, in my opinion, a public duty for the leaders in the medical profession to participate in court procedures in order to ensure a high standard of medical presentation. Instead, there has been much evasion and outright boycotting of court relationships by the outstanding physicians in every community.

The other 5 subjects are all dealt with authoritatively and expertly. The problem of artificial insemination will certainly receive legal clarification in the near future. Every physician should read the discussion of the practice of pathology with its concomitant medicolegal problems. The problem of surgical sterilization is an important subject to every physician.

The section on "Trauma and Tumors in Industrial Medicine" is particularly interesting because there is a sharp contrast between the medical and legal conclusions. The preponderance of medical opinion is that trauma neither produces nor accelerates the growth of tumors. On the other hand, there have been legal judgments that trauma may cause and/or accelerate the growth of tumors. The symposium on the use of "Scientific Tests in Evidence" is of considerable value. The medical data are presented in an interesting manner and the legal discussion covers the subject well.

This unusual and stimulating symposium has both the defects and extraordinary virtues of an informal discussion. On the one hand, there is considerable lack of systematization in the topics. On the other hand, there is a spontaneity which is both stimulating and highly entertaining. Any doctor who reads this book will probably gain an increased esteem for the intellect of the legal profession and should gain many very valuable pointers concerning his own relationship with lawyers and courts. Although each of these topics is likely to undergo considerable alteration in the near future, on the basis of statutes and legal decisions, the book would, nevertheless, be a valuable addition to any library.

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NEUROANATOMY. By *Fred A. Mettler, A M., M. D., Ph. D.* Second Edition. (St. Louis: The C. V. Mosby Company, 1948.)

The practical arrangement of the subject matter which was used in the first edition of this text has been retained. The gross anatomy of the central nervous system, well illustrated with unique dissections, is described first; then the detailed anatomy of the fibre tracts and nuclei. A feature is the series of cross sections which show the internal structure of the brain stem at levels approximately 2 mm. apart throughout its whole length. At each level 2 sections are reproduced, one showing fibres and the other cells. These excellent illustrations are labeled fully and are very useful.

In this second edition necessary and helpful changes have been made throughout the text and in the illustrations without enlarging the book unduly. Thus the descriptions of the corpus striatum, cerebellum, and extrapyramidal mechanisms have been largely rewritten. Additional data on the auditory pathways have been included, and the degeneration and regeneration of nervous tissue and end organs are briefly described. The account of the blood supply has been expanded to make available details of the arterial supply and venous drainage of all parts of the nervous system. Many of the illustrations have been improved by enlarging significant portions, redrawing, or adding explanatory diagrams. In addition a considerable number of new illustrations have been added. The cross sections of the brain showing the nuclei and tracts supplied by the penetrating branches of the arteries are particularly helpful. Finally, the index has been simplified.

Because of the detailed information it contains, this text will continue to be particularly useful to the advanced student and neurologist.

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INTRODUZIONE ALLA PSICOLOGIA (Introduction to Psychology). By *Prof. Agostino Gemelli and Prof. Giorgio Zunini.* (Milano: Societa Editrice "Vita e Pensiero," 1947.)

In this volume the authors have endeavored to provide a panorama of modern psychology, the problems and contributions of its various schools, its status at the present time, and the direction in which it should move to become a truly autonomous science. The book is of interest as an example of current psychological thought in Italy and as a practical approach to problems in the field. The senior author is the founder and director of the Laboratory of Experimental Psychology at Universita Cattolica del Sacre Cuore, in Milan. The aim of Professor Gemelli and his co-workers is to liberate psychology both from philosophy and biology by concentrating on the study of man in the broadest possible sense, and on the place man occupies in the world of nature.

In this introductory text, the authors do not adhere to any particular school or system of research. They try to enucleate from each the most vital and enduring contributions and to apply these in the context of a given problem. The perils of either a philosophical or a physiological overemphasis, they believe, can be avoided by envisioning psychology as the science of man in his complete and admirable unity. Organic, hereditary, or constitutional factors in the various psychic activities must be balanced against the environmental conditions which influence their development.

It is submitted that the study of behavior, when emancipated from the materialistic preoccupations of former years, contributes substantially to the interpretation and appraisal of effective, intellectual, and volitional processes. For behavior is a constituent of man's organic unity, which in turn expresses a still deeper unity—the interior of life, which is not a chaotic world at all but a succession of processes and states whose reciprocal interplay determines the personality of the individual and his attitude at a given moment. None of the various functions with which psychology is concerned—

whether "organic," "inferior," "superior," affective, intellectual, or volitional—has a primary role with respect to the "totality" of man. Neither is man the result of their summation or their correlation. For the individual exists as a unity before the differentiation and development of the single functions.

It is along the path thus delineated that modern psychology liberates itself from the bondage of cartesian prejudice which tends to confine it to the study of interior experience. As a result, psychology is enabled to concentrate on facts which can be observed, described, and reproduced. The correspondence between interior life and behavior forms the basis of the scientific approach to the study of personality, for it rests on the terrain of positive fact rather than of philosophic speculation.

On the basis of the above orientation the authors present a succinct and effective review of the substance of modern psychology, with special emphasis on comparative and social psychology and the psychology of individual differences. The book is well documented and should serve as a useful introduction to modern psychology in Italian circles. American psychologists will find therein an interesting analysis of their methods of approach.

C. C. B.

OLD AGE. ITS COMPENSATIONS AND REWARDS. By *A. L. Vischer.* (New York: Macmillan Co., 1947.)

This is a translation of the second edition. The book is divided into three main parts. Part I deals with the bodily and mental changes occurring in old age. Part II deals with longevity and methods attempted for the prolongation of life, and rejuvenation of the individual. Part III discusses the achievements of old persons and their value to the community, together with a discussion of the cultural attitudes which have prevailed.

The book as a whole appears intended for popular consumption, and there is practically nothing in this book which would not be understood by the ordinary nonmedical reader who was of average intelligence. There is quite a collection of statements concerning old age from authors both ancient and modern.

On the whole, the book makes interesting reading, and there is considerable worth-while information. For the lay person who wishes an interesting and reliable statement about many facts concerning old age, it is a book that can be recommended. For the physician or psychiatrist seeking new information on the subject, the book will be something of a disappointment.

K. M. B.

1947 YEAR BOOK OF NEUROLOGY, PSYCHIATRY AND NEUROSURGERY. Edited by *Hans H. Reese, M.D.,* and *Mabel G. Masten, M.D.* (Neurology), *Nolan D. C. Lewis, M.D.* (Psychiatry), and *Percival Bailey, M.D.* (Neurosurgery). (Chicago: The Year Book Publishers, 1948.)

This much esteemed annual review is one of 14 Year Books covering the several fields of medicine and published continuously since 1900. They fairly represent the developments in medical science during the last half century.

The present volume contains a considerable number of abstracts from foreign journals, by far the greatest number coming from France and the Scandinavian countries, with a few, in descending numerical order, from Swiss, German-Austrian, and Latin American publications.

In the introduction to his section Dr. Reese emphasizes the need of expanded medical services throughout the country—more doctors, more medical schools, and more trained personnel, and a greater interest on the part of the physician in the "political socio-economic responsibilities of the nation, state and community," together with improvements in medical education with a view to better service for the entire population—as safeguards against the threat of socialized medicine.

Nolan Lewis comments on the diminished number of contributions on military psychiatry, and remarks hopefully that "this may be the last occasion for some time to devote a special part of the book to military psychiatry as such."

As would be expected, reports on traumatic injuries of the nervous system have become much fewer, being replaced by the disorders of peacetime neurology and neurosurgery. Bailey remarks the vast improvement in the management of injuries of the spinal cord in the paraplegic wards of veterans' hospitals and expresses regret that civilians with cord lesions cannot have the benefit of such facilities.

There continue to be numerous contributions on the various shock therapies and the newer modifications of psychosurgical technique.

The range and order of topics in the several sections of the Year Book are much the same as in previous years. Its value as a concise work of reference is well established.

C. B. F.

IN MEMORIAM

ABRAHAM MYERSON, M. D.

1881–1948

That fine species of neurologist and psychiatrist, which flourished to the honor of both disciplines, is fast becoming extinct. There were great psychiatrists who contributed solidly to neurology and there were eminent neurologists who had genuine insight into psychiatry. They flowered for a long time; now they are no more. In many ways their passing, though understandable, is to be deplored. The vast accumulation of knowledge in the respective fields now makes it almost impossible for one man to master both. The cleavage seems inevitable, and yet it may be regretted. Sound knowledge of the structure of the nervous system is as fundamental for the understanding of the dynamics of behavior as the knowledge of function is necessary for the understanding of structure.

Abraham Myerson was one of the remaining few who attained eminence in both fields. He was professor of neurology at Tufts and clinical professor of psychiatry at Harvard. He was an active member of the American Neurological Association and an even more active worker in The American Psychiatric Association. In more recent years he labored more consistently in the field of psychiatry; at the same time he carried on research in the physiology and pharmacology of the autonomic nervous system. While he was unusually articulate and realized the importance of language in the dynamics of psychiatry, he was equally aware of the importance of the fundamental medical sciences.

Abraham Myerson was born in Lithuania on November 23, 1881. He came to this country at the age of five, attended public school, and graduated from the English High School of Boston in 1898. After an interval of 6 years, during which he engaged in various occupations, he entered medical school and received his degree from Tufts in 1908. He was resident neurologist at the Alexian Brothers Hospital, St. Louis, 1911-12; resident at Boston Psychopathic Hospital, 1912-13; associate in neurology, Harvard, 1913-17; and clinical director and pathologist at Taunton State Hospital, 1913-17. After 3 years as assistant professor of neurology at Tufts he became professor in 1921, holding the chair till 1940, when he became emeritus. From 1935 to 1945 he was clinical professor of psychiatry at Harvard. He was director of research at the Boston State Hospital from 1927 to 1948 and chief of neurology and psychiatry at the Beth Israel Hospital in Boston from 1942 to 1945. Withal he engaged in active and very successful private practice. He was often called upon as an expert in medicolegal cases.

Dr. Myerson was an active member of many scientific societies, among them, in addition to the A.P.A. and A.N.A., the American Psychological, the American Psychopathological (president 1938-39), New England and Boston societies of psychiatry, the National Committee of Mental Hygiene, the American Academy of Political and Social Sciences, and the Jewish Academy of Arts and Sciences. He served as chairman of the committee of the American Neurological Association for the investigation of eugenical sterilization, chairman for 8 years of the committee on research of The American Psychiatric Association. He was a member of the Advisory Council on Research in Nervous and Mental Diseases, U. S. Public Health Service, from 1942 to 1946, and of the commission of the Association for Research in Nervous and Mental Diseases. He served on the National Research Council. He was consulting neurologist to several hospitals.

Myerson wrote fluently and well and contributed innumerable papers on neurology and psychiatry to scientific journals. Many of them were of high scientific merit; nearly all had genuine worth. Amidst all his activities he found time to publish many books: The Nervous Housewife, 1920; The Foundations of Personality, 1921; The Inheri-

tance of Mental Diseases, 1925; When Life Loses Its Zest, 1925; The Psychology of Mental Disorders, 1927; Social Psychology, 1934; Eugenical Sterilization, 1936. During his last illness he was engaged in writing a book, which unfortunately he did not finish, embodying his views on the philosophy of neurology and psychiatry and on life in general.

Abraham Myerson possessed a dynamic personality. He was courageous and forthright and frequently engaged in polemics. He loved intellectual combat. His forthrightness often brought him into conflict with persons who do not relish raw truths, but he neither had rancor in him nor ever called it forth in others. He hated intellectual sham as he resented pomposity. He often broke a lance with psychoanalysts and was a severe, sometimes too severe, critic of psychoanalysis. His scientific training and deep roots in fundamental psychiatry sometimes blinded him to the great contributions of Freud. There is much in psychoanalysis which smacks of totalitarian psychology and there also is some totalitarianism in the hierarchy, which is a little ridiculous. To recognize this is a virtue; to fail to acknowledge the fructifying psychoanalytic concepts of permanent value is a fault.

Abraham Myerson had a genuine capacity for friendship. Like all intelligent men he had a fine sense of humor and, what is rarer, the ability to laugh at himself. He possessed a deep social sense, was very generous and charitable, and had great zest for life. He was a good human being and a good doctor—a fine combination for a practitioner of medicine. During his last illness he suffered a great deal, yet he bore his suffering with unusual courage and fortitude. Sometimes the cardiac attacks were agonizing in intensity and literally frightening. Between the attacks he saw patients, wrote his unfinished book and received friends with a smile. It was a rare demonstration of philosophical fortitude. He had a happy family life, was very devoted to his wife, and almost doted on his children. He married Dorothy Loman in 1913, and she survives him. Two sons, Drs. Paul G. and David J., both psychiatrists, and a daughter, Anne, remain to carry the honorable name of their father. Abraham Myerson lived a full and useful life. He died on September 3, 1948, at the age of 67. His friends will long remember him.

I. S. Wechsler, M. D.